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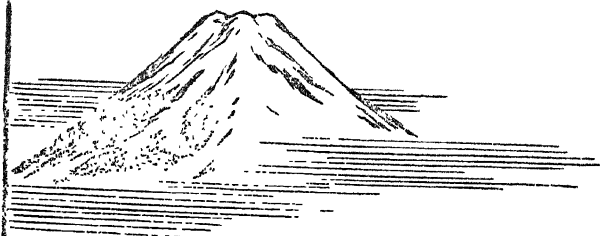
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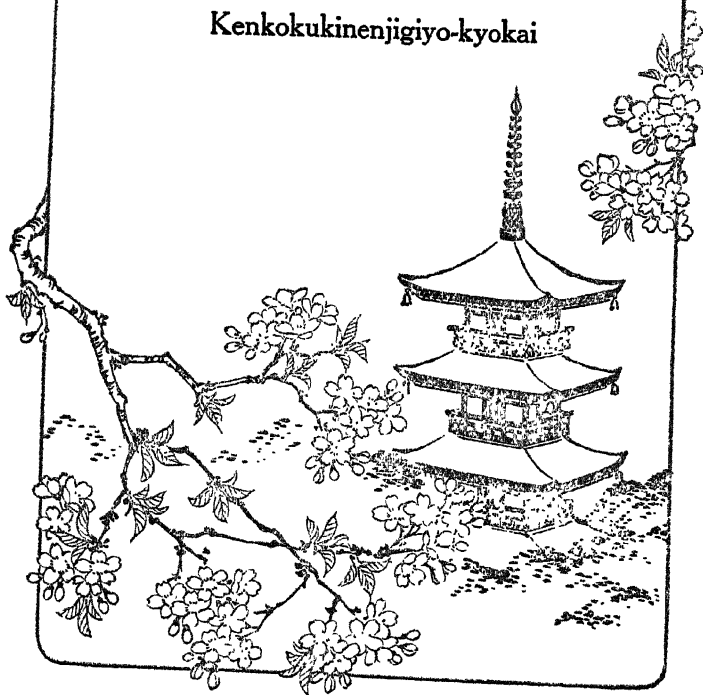




# Japan in Advance

by

Kenkokukinenjigiyo-kyokai



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# **Industrial Japan**





## THE INDUSTRIAL EXPANSION OF JAPAN

- a. A Resume of Industrial Development of Japan
- b. The Status of Industries
- c. Industrial Boom Following Replacement of the Gold Embargo
- d. Social Dumping
- e. Japan-Manchoukuo Economic Relation
- f. The Future of Japanese Industry

### a. A Resume of Industrial Development of Japan

The Meiji Restoration (1868) was an epochal change that completely revolutionized Japan into a modern industrial nation. The Restoration took place about one century later than the British industrial revolution. The visit of the "Black Ships" led by Commodore Perry to Uraga aroused the Japanese nation from the dormant state that had continued for more than two centuries due to its seclusion from the outside world.

After long-continued strife between the Shogunate and the loyalists, the Tokugawa Government fell and the restoration of the administrative power to the Throne, called the Meiji Restoration, was accomplished, which was immediately followed by the inauguration of the Meiji Government and the abolition of the clan governments. This sweeping change in all institutions, political, social, economic and others, ushered in a period of capitalistic industrialism to Japan. The march of time immediately told upon popular customs and manners, and the importation and absorption of Occidental knowledge

and learning made the people adopt a European style of architecture, and modes of dressing and living to a considerable extent. As a result, the Japanese industries were adversely affected and some of them sank to a state of extinction. For most of the industries had been under the aegis of protection of the clan governments, but now protection was withdrawn, while some of them lost their *raison d'être* in consequence of the change in popular customs and manners. It was a fact that, for some time after the Restoration, the industries generally were unable to adapt themselves to the changed conditions and underwent indescribable hardships. The Government was deeply concerned about the difficult industrial situation, and, in order to relieve industrialists, engaged the services of European and American experts and engineers as teachers and advisers and established model factories of different kinds, experimental stations and laboratories, in and after 1872. Furthermore, in view of the advisability of utilizing exhibitions and fairs in the execution of industrial policies, the Government participated in the International Exhibition held in Vienna in 1873 and also sent a number of experts abroad for the acquisition of technical knowledge and skill. It also opened exhibitions and fairs in various places of the country with a view to stimulating and promoting the development of industries. Nor was it inactive in promoting industrial education, and established the Technical College.

If the progress of a nation can be measured by the industrial development, we can learn how Japan has stepped into the limelight of the world within the 67 years that have elapsed since the Emperor Meiji took over the reins of government from the last of the Tokugawa.

gawa Shoguns. From an agricultural country before that epochal period, Japan emerged an industrial and commercial country. The first period of development covered about 27 years from the beginning of the Meiji Era to the Shino-Japanese War, the second one extending for about 10 years from the termination of that War to the outbreak of the great Russo-Japanese War, the third lasted about nine years between the end of that war and the outbreak of the World War, the fourth and the most significant period of industrial growth extended over the whole period of several years, and the last, but not the least important was the period between the closing of the World War and the present time. The country's industries attained a highly-developed stage in the course of the World War and this caused Japan to equip itself with the qualifications of a modern industrial nation.

The close of the War of the Saigo Rebellion in 1877 put an end to the disturbances that had almost incessantly occurred in the country. After the termination of the civil war, various industries rose in rapid succession, for which the additional establishment of national banks consequent upon the revision of the banking regulations in 1880 and the increased issue of convertible notes by way of meeting the expenditure for the suppression of the Saigo Rebellion, were responsible. The revision of the national bank regulations in 1889 brought great advantage to the national banks, so that many people applied to the Government for their establishment. During the four years following 1881, Japan's economic circles suffered from reactionary depression, but, with the perfection of various systems copied from those in Europe and America in and about 1886, the industries of Japan

were placed on the road to further development. On January 1, in 1886, the conversion of Government notes into specie was started, which stabilized the value of currency and pacified the popular mind. This, combined with an increase in public savings and in the amount of exports which made the circulation of money very easy and the money rate remain low, caused enterprises to revive with redoubled force. In those days, the interest of entrepreneurs centered upon railway construction. Before long, the mania for railway construction shifted to the establishment of cotton spinning mills and then to the prospecting and working of new mines. The machine manufacturing, spun silk, woolen textile, cement, glass and paper milling industries also prospered. All these industries were first undertaken by the Government, till about 1880, but were gradually transferred to private management after that year.

Under the circumstances, industrial companies of diverse kinds were promoted and established one after another. Many business men erected factories, copying from the model factories that the Government had founded and had been operating as a means of encouraging popular industries. This opened a new chapter in the history of industrial development of Japan. The total subscribed capitalization of various industrial companies, consisting of those interested in agriculture, commerce, industry, railways and banking, was only ¥25,000,000 in 1877, but in 1898 the amount increased to about ¥208,000,000. Of this, the banks accounted for the most, more than 35 per cent, and general industries, mining and commerce about 20 per cent each. The rapid rise of enterprises about 1886, however, was fraught with grave dangers.

In the first place, the undertakings launched at the time were, for the most part, based on plans which were hastily devised on the spur of the prevailing enterprise mania and were far from adequate and practical, logically destined to suffer from the ensuing reactionary depression. In the second place, the recovery in the value of silver necessarily told upon the export trade. In 1890 came the reaction. The enterprise mania which had been prevalent in economic circles for three years speedily disappeared in a terrible reactionary panic and many new companies of mushroom growth failed one after another. Even the companies that stood on solid foundations were adversely affected, their stocks slumping in the market and the increasing stringency of money plunged the business and industrial worlds into the trough of a serious deflation. The Bank of Japan authorities, consulted with the Government on measures for economic relief and, on February 28, 1890, issued for the first time an excess of convertible notes. This was followed by a revision of the bank note regulations in May, increasing the amount of the guarantee funds from ¥70,000,000 to ¥85,000,000 and, at the same time, inaugurating the system of collateral security. These relief measures, however, failed to accomplish their purpose. Meanwhile, the price of rice went up very high as a result of a bad crop, while Japan's foreign trade that had been marked by an excess of exports met with a reverse due to the increased importation of foreign rice and a sudden rise of the price of silver, and the balance of our trade with countries abroad for 1890 showed a large excess of imports over exports. In the following years, there were repeated runs on banks; nor did things improve in 1893, throughout

the year economic circles remaining under the pall of serious dullness. In 1894, the war with China broke out, in which Japan was victorious. The effects of this victorious war upon business were stupendous. This war not only advertised Japan to the world and stimulated its export trade but also enabled it to get a war indemnity of 400,000,000 taels from China, not to mention the addition of Formosa to its territory, an ascendancy of power in Korea, and, above all, an awakening to their own strength and capabilities by the Japanese people at large. Under such conditions, it was small wonder that the Japanese business and industrial worlds that had been in a state of inactivity for several years suddenly entered upon a period of great animation and development. The nation's vitality that had been pent up in the years of depression was brought into full play during the war and, after its termination, was translated into business and industrial undertakings.

In the latter half of 1895, Japan received the enormous war indemnity from China which gradually caused currency inflation, attended by a rise in prices and an increase in profits of industries. The prices of shares also went higher, whereas slackness characterized the money market and the money rate dropped to lower levels. In these favorable circumstances, business was enlivened and, moreover, as the central bank adopted a policy of encouraging the promotion of new enterprises, many were launched. As in the boom of 1886 and after, the attention of entrepreneurs was centered upon the railway business. The great boom following the war was short-lived, for its reaction was felt in the latter part of 1896 and our economic circles were in the grip of



Planting of Paddy Rice in early Summer. This View is  
seen everywhere in this Country.



Silkworms Reared at a Hatchery. Raw Silk is Produced  
from Cocoons Made by Silkworms

*(Rice and Silk are the Japan's Premier Agricultural Products  
from the Legendary Age.)*





depression in 1897. Towards the end of 1896, foreign trade gradually fell off, and, with the growth of excess imports, money became tighter and the money rate higher. The fall in the price of companies' shares consequent upon the unfavorable monetary situation discouraged the ardor of entrepreneurs, injured credit and abruptly threw the financial world into confusion, eventually causing a panic in the Kwansai districts. In the face of these gloomy conditions some business and industrial leaders started campaigns for the relief of industrial undertakings in hard straits. They approached the Government for flotation of a ¥40,000,000 loan in foreign markets for this purpose, and permission was obtained. With the influx of money from abroad, economic circles were revived by degrees, and things were made easier in May, 1899, when another loan of ¥100,000,000, was floated abroad. The result was new speculative enthusiasm and enterprise fever among the people. This prosperity in business and industry was halted by a large excess of imports over exports and a rapid drop in the price of shares in the spring of 1901, and the serious dullness so abruptly ushered in continued with minor changes till after the close of the Russo-Japanese War. During this period, however, striking progress was made in cotton spinning and railways, and it is especially worthy of note that Japan, which had been an agricultural country, took a step toward its rise to a leading industrial nation.

The Russo-Japanese War of 1904-5 diverted huge amount of capital into war funds, and various productive industries were occupied in the manufacture of munitions, so that the financial world was busy during the war.

The victory of this country in the struggle put new life into business and, in 1906, the people again caught the fever for new enterprises. This was partially due to the easy monetary situation, rise in the price of commodities, increase in profits cleared by different undertakings, notable increase in the price of securities, nationalization of private railways on an extensive scale, etc., but mainly due to the establishment of the South Manchuria Railway Company in June, 1906. The industrial mania which this started, continued without a break till the first half of 1907. Between the latter half of 1905 and the corresponding period of 1908, new companies with a combined capitalization of ¥1,333,000,000 were established and increase of capitalization by existing companies reached ¥556,000,000, the total being ¥1,880,000,000. Of this, ¥651,000,000 represented the industrial companies' capital and ¥239,000,000 capitalization increase by the existing ones, or ¥890,000,000 in all. The focus of this expansion was in the electric industry. In January, 1907, the great post-bellum boom reached a turning-point. A disastrous fall in the stock market followed, and a sudden tightening of money brought about convulsions in the markets. The economic unrest was at its height in the first half of 1908 and extreme stringency of credit and uneasiness in the money market culminated in the suspension of some 40 banks throughout the country. Although, in response to popular request, the Government took steps for financial relief, it was of no avail and business was overtaken by extreme depression. In the latter half of 1909, however, money was made very easy by the influx of foreign capital, retrenchment in the State finances, increased redemption of national loans and

execution of the principle of the non-flotation of national loans in the open market, and toward the beginning of 1909, the lowest record rate, 1.3 sen per diem, in the history of the money rate in this country was registered. Concurrently, securities generally rose in value and the nation gradually entered a period of economic animation. From 1910 on, new enterprises increased in number and reached a peak in 1912, but, from the beginning of the latter half of that year, they again began to decline and continued inactive till immediately before the World War.

Japan's export trade showed a marked increase after the Sino-Japanese and Russo-Japanese Wars. The reason for it is traceable to the fact that the international position of Japan was enhanced by its victories in the two wars; that the Government authorities and business carried out adequate policies for the encouragement of export trade; that various organizations for foreign trade made remarkable progress abroad under Government protection; that the Japanese Government lowered its import tariff and abolished the export duty on manufactured goods; and that Japanese business men and industrialists sought outlets for their products, as a result of over-supply at home brought about by a steady increase in undertakings. This increase in the export trade was partly ascribable to a gain in the export of raw silk and other agricultural products, also cotton yarn and cotton textiles. How the industrial enterprise fever was running high in Japan during the World War may be seen from the fact that the total paid-up capitalization of various industries at the end of 1914, the year when the War broke out, amounted to about ¥2,000,000,000, which increased to

¥8,200,000,000 at the end of 1920. This represented a fourfold increase during the intervening period. Of this amount at the end of 1920, that for commerce occupied 44 per cent and that for industries 37 per cent. As regards the ratio, that for commerce had decreased since the termination of the Sino-Japanese War, but that for the industries doubly gained. This fact is illustrative of the fact that Japan had gained momentum as an industrial country more than a commercial country.

The increase in the export of agricultural products, such as foodstuffs and raw materials was not so large during the World War, but the gain in that of manufactured products was remarkable. In the field of imports, while manufactured articles rather fell off in volume raw materials registered a great increase. This fact reflects Japan's emergence from the status of an agricultural country and its rise as one of the industrial nations of the world. It should be noted here that Japanese industries became mechanized in this period. The salient factors that caused the change are found in the rise in wages and a revolution in the motive power used. In the days prior to the Sino-Japanese War, wages were very low—too low to suggest the use of machinery to general industries, except for those of special kinds, and the industrialists looked to manual industries for the industrial development of the nation. The rise of enterprises following the Sino-Japanese and Russo-Japanese Wars, however called forth a large demand for labor, which was naturally accompanied with a rapid rise in wages. In 1892, factory workers numbered approximately 300,000, but they increase to some 440,000 in 1897 and to 790,000 in 1911. Workers in the mines likewise nearly

doubled during the same interval. In consequence, wages rose all round. The revolution in motive power which proved to be an important factor in the mechanization of our industries was chiefly witnessed in electric power. The electric undertakings in Japan were brought into existence after the termination of the war with China, principally for the purpose of providing electric light service and it was after the Russo-Japanese War that electric power service was started. The combined capital of electric companies stood at ¥15,000,000 in 1903, but increased to ¥51,000,000 in 1908, and further to ¥113,000,000 in 1910, the volume of electric power showing an increase every year. In short, since the Restoration, Japan had imported various modern industries from abroad and its Government and people had done their best for their development, but it was only after the Sino-Japanese War that they made remarkable strides.

The industrial development after the war with China was centered upon railways and the banking business, fundamentals for the growth of industries, but in the provinces, cotton spinning, sugar manufacture and other industries rose to a notable extent. What is noteworthy in this connection is that the production of silk and cotton textiles, matches, tea, etc., which had been developed as home industries, was converted into factory industries or mechanized to a large extent. Although the rise of enterprises subsequent to the Sino-Japanese War was doomed to be abortive on account of lack of sufficient banking facilities to keep pace with it, the Japanese industries, after the Russo-Japanese War, continued to develop. On the other hand many new industries were launched foot and placed on the

road to progress. At this time, Japan succeeded in changing itself from an agricultural country to an industrial one. The industrial development and progress Japan made in this period was astounding, but it was largely limited to the textile industry, and, even here only textiles of coarse grades were produced, better grades being imported from abroad. Japanese industries were in such a condition till the outbreak of the World War, during which they underwent an unprecedentedly great change and, with one bound, Japan became one of the foremost industrial Powers of the world.

For four years previous to the outbreak of the World War, which brought about changes in world affairs to an extent never witnessed before in the history of humanity, Japanese economic activity had been stagnant following the periodical reactionary depression in every branch of our business and industry. Japanese industry, which had been advancing since the wars with China and Russia, manifested great activity during the World War, and Japan's economic circles, that had been suffering from an adverse balance in foreign trade and barely able to make both ends meet by borrowing from abroad, not only succeeded in improving trade with overseas countries but in realizing a considerable excess of exports over imports. Further, Japan's international receipts in the form of "invisible exports" and other items greatly increased and it became possessed of a huge amount of specie reserve at home. As the war progressed, Japan increasingly supplied the deficiencies in production in the belligerent countries of munitions and articles of daily necessity, and, as the markets in the South Seas countries, South America, Africa and elsewhere were

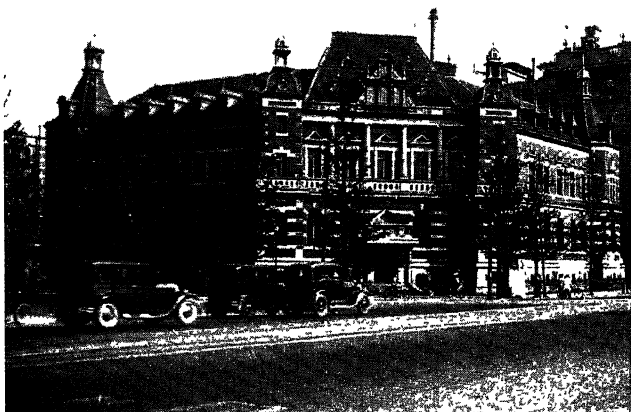
cut off from the supply of European products, it supplied them with its products.

On the other hand, imports greatly fell off, due to the fact the European countries that had shipped large quantities of manufactured articles to Japan were engrossed in the prosecution of hostilities.

Japan was no exception to the chronic economic depression following the end of the World War, but business expansion and development were going on with unremitting vigor. The number of business companies at the end 1929 was 65,000 with a total paid-up capitalization of ¥14,000,000,000, of which that for commerce was 42.6 per cent and that for industry 39.8 per cent, in striking contrast to the end of 1895 when companies totaled 2,800 with an aggregate capitalization of ¥245,000,000. Japan thus asserted itself as a commercial country. Commercial enterprises all underwent pronounced development. Commerce early in the Meiji Era following the Restoration did not amount to much. Most of the wholesale and retail business was small scaled. With the introduction of modern methods of commercial transactions, various business organizations such as banks, exchanges, insurance and trust companies and others came to be established. In 1893, one year previous to the Sino-Japanese War, the number of banks, including the special banks, national banks, ordinary banks and savings banks, was 763, with aggregate, subscribed capitalization of ¥110,000,000, of which ¥94,500,000 was paid up. Within the subsequent 40 years to the end of 1933 the number decreased to 626, as the result of the readjustment policy encouraged by the Finance Ministry, but their subscribed capitalization increased to



¥2,388,000,000, of which ¥1,620,000,000 was paid up. Japanese industry during the feudal days of the Tokugawa Shogunate was primitive. The metal industry was probably the only one worth mentioning as a "modern" industry, but today Japan's position as an industrial country has been established beyond dispute. Its textile industry is dominating world markets and has amazed other leading countries in this industry. Not only this, but in other lines of industry, such as iron and steel, mechanical, chemical, electric and so on. Japan has made amazing strides, and present development is in striking contrast to the status of a half century ago. The same tendency is witnessed in the transportation and mining industries. In its foreign trade, as stated before, Japan has made signal strides during a comparatively brief period. In 1887 Japan's annual export volume amounted to only ¥52,000,000, far less than that of a single kind of goods at present, and the import volume amounted to ¥44,000,000, with a total of ¥96,000,000. The trade figures are in a remarkable contrast to the export volume of ¥432,000,000 and the import volume ¥494,000,000, with a total of ¥927,000,000 in 1908. And, if we compare the trade in those days with that for 1934, when the year's volume amounted to ¥4,457,000,000, of which export were ¥2,172,000,000 and imports ¥2,283,000,000, we feel as if the trade could hardly be that of the same country. This is only a brief survey of the industrial expansion of Japan. If a closer study is made, as we intend to do, of details of the foreign trade situation of this country, it can be found that while Japan was developing as an industrial country it was being left behind as an agricultural country. Until the



Frontal View of the Tokyo Chamber of Commerce  
and Industry



The Transactions Going on at the Tokyo Stock Exchange



Meiji Restoration, Japan was almost entirely an agricultural country. Even at present, half the total population of Japan is engaged in agriculture. Because of this, agriculture forms a great asset to the domestic economy of Japan, but agricultural progress has lagged partially because the agricultural method of feudal days is still being used by the farmers even at present. The great cause of the agricultural stagnancy is the fact that the land under cultivation has already reached the saturation point, leaving no more room for the yearly increasing population of farmers to till it. Various measures of encouragement and protection have been administered to agriculture, but the Government attaches a greater importance to those of industry with the object of giving people jobs. The adoption of the industrial encouragement policy was thought important if Japan was to elevate its position in the world. Notwithstanding this, agriculture has advanced and the extension of cultivated land, the improvement of agricultural technique and the increase of farm crops has taken place, as the Government saw that the country remains far behind the progressive nations of Europe and America in the application of scientific principles to farming. In the realm of agriculture, as in all departments of modern Japan's material development, abundant traces are found of official activity. Thus, in the year 1900, the government enacted laws designed to correct the excessive subdivision of farmers' holdings; to utilize unproductive areas lying between cultivated fields; to straighten roads; to facilitate irrigation; to promote the use of machinery; to make known the value of artificial fertilizers; to conserve streams and to prevent inundations. Further, in order to

furnish capital for the purpose of farming, 46 agricultural and industrial banks, one in each prefecture, were established with a central institution called the Hypothec Bank which assists them to collect funds. A Hokkaido colonial bank and subsequently a bank of Formosa were also organized, and a law was framed to encourage the formation of co-operative societies which should develop a system of credit, assist the business of sale and purchase and concentrate small capital. Experimental stations were another official creation. Their functions were to carry on investigations relating to seeds, diseases of cereals, insect pests, stock-breeding, the use of implements and the processing of agricultural products. Encouragement by grants in aid was also given to the establishment of similar experimental farms by private persons in various prefectures, and such farms are now to be found everywhere. This official initiative, with equally successful results, extended to the domain of sericulture and tea-growing. The rice crop, which is the main food of the Japanese people, has thus increased two and a half times since the Meiji Restoration, and self-sufficiency has been realized, but, in spite of all these, the farmers' income as a whole has made no large gain. Due mainly to a heavy drop of prices of sericultural cocoons, which form one of the two main products of agricultural economy, the farmers' income has gone off considerably recently.

An enormous amount of debts and financial burdens borne by farmers are bringing pressure to bear upon them. The revival of agricultural economy is one of the most important concerns of this country, and Government authorities are endeavoring relieve the economic plight of

the farming classes. Except for the agricultural problem Japanese economy as a whole is progressing satisfactorily.

### b. The Status of Industries

The general industrial development of Japan for the past 67 years has been roughly described above. Before going into details on various industries in this country, the percentage of the population engaged in various occupations in three countries is given below :

Percentage of Population in Various Countries  
in Vocational Classification

	Japan (1920)	U.S.A. (1920)	Great Britain (1921)
Agriculture and forestry	51.6	26.2	7.2
Aquatic industry	2.0	0.1	0.3
Mining	1.6	2.6	6.1
Manufacturing	19.4	30.8	35.4
Transportation	3.8	7.4	8.3
Commerce	11.6	10.2	10.7
Official business	5.3	7.0	12.7
Household employes	0.1	15.7	{ 6.7
Others	1.9		
Unemployed	2.7	—	3.3
Total	100.0	100.0	100.0

Note: The above figures are taken from "The Digest on the Status of the Power," prepared by the Bureau of Statistics of the Imperial Japanese Cabinet. The percentage for Japan is for Japan Proper and that for Great Britain excludes Ireland.

The agricultural population occupies the largest portion of all in Japan, being 51.6 per cent, higher than the

percentages in France and Italy, where they are 41.2 and 48.1 respectively. On the other hand, the industrial class is the smallest of all major Powers. Considering this, the position of agriculture in Japan's economy is very important and much room is left for Japan to develop industrially. Its industrial production has gone off somewhat since the world economic panic, but in 1932 the amount was ¥9,674,000,000 in contrast to ¥12,786,000,000 in 1929. Industrial production, classified according to kinds, for 1932, is as follows :

### Japan's Industrial Production

	Value	1932
		Percentage
	(In million yen)	
Agricultural	2,370	23.5%
Live-stock	169	1.7
Forest	205	2.1
Aquatic	373	3.9
Mineral	513	5.3
General industries	6,142	63.5
Total	9,674	100.0

Note: The above figures were prepared by the Finance Ministry.

As is seen above, general industrial production for 1932 amounted to ¥6,142,000,000, occupying the largest portion, 63.5 per cent, and agricultural production was the second largest. The fact proves that Japan is well qualified as an industrial country today. To emphasize this, further explanation in a concrete form not be out of place. The index number of general industrial production in 1931 in Japan is 475.1 on the basic figure, of

100 in 1905, when the Russo-Japanese War ended, indicating the rapidity of industrial development after the war. Another thing that deserves mention is the increase in the variety of trade articles. In the early period of industrial development of Japan this country imported a large amount of manufactured goods from abroad ; but a change came over this situation later, as it imported materials and after manufacturing them into finished articles exported them to foreign countries. This trend has become more pronounced in recent years. What throws a side light on the phenomenal advance of our industries is the development of our export and import trades. While raw material exports during the six years between 1914 and 1919 doubled, fabricated articles to be used as raw materials nearly trebled and fabricated articles quadrupled. As regards imports for the same period, the volume of raw materials more than trebled, while that of fabricated articles used as raw materials and of fabricated articles increased nearly five times, and this fact tells eloquently of the wonderful development of our industries during that period. In this unparalleled war prosperity and activity, the Japanese industries that had attained fair development were given a great impetus and made remarkable progress, this being particularly the case with the silk, cotton, spinning, sugar, flour, shipbuilding, iron and steel industries. During six years between 1914 and 1919 the output of raw silk doubled. On the outbreak of the World War, the demand for Japanese cotton yarn and textiles greatly increased and they were shipped to the Chinese, Indian and South Seas markets in large quantities, as a result of which our cotton spinning industry made a rather abnormally rapid develop-



ment. The great business and industrial boom brought on by the World War caused an expansion in the consumption of sugar, so that the sugar industry made an epoch-making advance. The flour industry was one of the industries that made a great leap forward during the war and post-bellum boom and assumed international importance. The shipbuilding industry also made long stride. Prior to the war, this line of industry in Japan had been in a very advanced stage and was fully equipped with technical skill and equipment sufficient to hold its own in international competition. The price of ships continued to go up, each day marking a record price which was broken the next day. Under such circumstances, profits earned by shipbuilders steadily mounted and this prompted them to carry out repeated extensions of their yards. Greater activity was noticed in the iron and steel industry, which was entirely due to the World War. During the war there was a world-wide demand for iron and steel. Consequently, iron imports into Japan daily dwindled, with the result that the price of iron mounted. The sky-rocketing of iron prices caused a white heat of activity in the iron manufacturing industry, and iron and steel foundries appeared like mushrooms, growing up in a single night. The unprecedented prosperity of the industry resulted in a record-breaking increase in the output of iron ores. The industries we have dealt with above had attained a fair degree of progress and development before the World War, but those which had been in their infancy also greatly developed under the stimulus of the world-wide armed conflict and their bases were consolidated during the war. One of the industries belonging to this category

is the machine-making industry. Prior to the war, it had been in a primitive state, due largely to the fact that other industries generally had not made sufficient progress and that technical skill in this line of industry was far from advanced. An unusual boom also prevailed in the electric apparatus and motor industries. In addition, such chemical industries as dyes, artificial fertilizer, glass, paper and brewing that had been undeveloped before the war made great progress during and after the war. Thus, under the most favorable conditions ushered in by the World War, Japan's economy effected an epoch-making advance, and, at the same time, industries of all kinds made conspicuous progress during the few years of the war. With the termination of the hostilities in the autumn of 1918, however, the powerful stimulus to development and progress disappeared and the world-wide depression that arose from the utter prostration and exhaustion of the belligerent Powers visited this country. In the spring of 1919, a far-reaching reaction was experienced in Japanese economic circles and this was rapidly followed by prolonged and most serious dullness. Moreover, the disastrous earthquake and fire that overtook the Kwanto district in 1923 destroyed the economic center of Japan and the financial panic that occurred in 1927 disturbed the financial system of the country. As a result, many of our industries were hit hard by a drop in prices and a decline in profits, and a wholesale readjustment of industrial undertakings side by side with that of business and financial enterprises, had to be effected during the ensuing years. Notwithstanding this, our industries have continued to develop, because of the fact that, during the World War, the economic world of

Japan was enormously enlarged in scale and the Japanese industries have now become an important factor in world economy. The removal of the gold embargo caused a serious depression, but its replacement in 1931 brought back the country to the former prosperity. The industrial production for 1932 follows :

Industrial products	1932	
	Value in million yen	Percentage
Textiles	2,511	41.0
Foodstuffs	59	14.0
Metals	544	9.0
Chemicals	840	13.8
Lumber and woodwork	242	4.0
Others	485	8.0
Total	6,142	1000.0

Note: The above was prepared by the Finance Ministry.

Japan has developed as a light industry country and, because of this, industry still occupies the most important position. The above figures show that textile products for 1932 constituted 41 per cent of the total production of ¥6,142,000,000. Viewed from the amount of investment, the number of operatives and other points, the textile industry holds the hegemony of all other industries. Japan thus has not yet quite emerged from the status of a light industry country. However, the position of the textile industry is gradually decreasing in importance while heavy industries and the chemical industry are coming into the limelight. This tendency can be seen from the foregoing table. The percentage of textile products for 1932 dropped from 44.3 for 1929, while



Hand-woven Figured Brocade of Gorgeous and Impressive Style Made by the Kawashima Textile Works, Nishijin, Kyoto. This Brocade is for a Wall Hanging and is Noted as Special Weaving Product of Japan



the percentages of the other two industries for 1932 gained, although slightly, over those for 1929. Such a tendency promises to be intensified yearly. The advance of these industries since the replacement of the gold embargo has been remarkable indeed. No rapid decline will overtake the textile industry, but, taken as a whole, the general course of Japan's industries is destined to be more marked in the field of heavy industry, the chemical industry, the precision industry and others. Japanese industries are thus undergoing a revolutionary change. For some time following the removal of the gold embargo, Japanese industrialists had to go through a severe ordeal. During this period they had to readjust their business and rationalize their management and productive technique. Various industries took this opportunity to bring about control among them. All these measures of business readjustment have improved their status and consolidated their foundation. Business corporations of shaky nature were discarded. The replacement of the gold embargo in December, 1931, took place at a very opportune time for the relief of economic distress. The exchange rate ensued as a matter of course. The outbreak of the Manchurian Incident shortly before the replacement of the gold embargo prompted the Government to issue an enormous amount of deficit-covering bonds. These facts combined caused a general economic revival in Japan.

### **c. Industrial Boom Following Replacement of the Gold Embargo**

With agriculture alone lagging behind, almost all fields of Japanese industry have been affected more or less

favorably by the replacement of the gold embargo. They shook themselves out of their state of lethargy by this stroke of good luck. The greatest stimulus has been given to the manufacture of export articles, heavy industry and the chemical industry. Various new lines of industry have also asserted themselves. Great increase of industrial production has been the result. The index number of industrial production in December, 1934, on the basic figure of 100 for 1928, was 176 in contrast to 109 for 1930; 108 for 1931; 124 for 1932; and 148 for 1933. The 1934 index was an increase of about 63 per cent over the 1931 index. Iron, steel, industrial chemicals and fertilizer realized especially large gains. These all more than doubled. Materials for textiles increased 42 per cent and foreign-style paper 30 per cent. Compared with the increase of industrial production in other countries, that in Japan made a rapid gain. On the basic figure of 100 in 1928, the comparison of indices of industrial production in leading countries show that Denmark and Sweden were the only countries having witnessed an increase of production over 100 in September, 1934, according to the League of Nations, the former being 124 and the latter 107.7. Great Britain showed an index number of 99.8 then, France 74.8 and in the United States it was only 64. Japan made a considerable gain as compared with other countries. As regards its foreign trade, the export trade figure in 1931 prior to the replacement of the gold embargo was ¥1,146,000 and the import trade figure was ¥1,235,000,000, with an aggregate total of ¥2,382,000,000. In 1934, Japan's foreign trade amounted to ¥4,454,000,000, of which the export value totaled ¥2,117,000,000 and the import

value totaled ¥2,282,000,000. The trade volume for 1934 was near an all-time record of ¥4,878,000,000 for 1925. It is a really remarkable fact for Japan alone to see this considerable trade progress, when the world's trade was sinking. Foreign countries may well be surprised at this phenomenal growth of Japan's trade. As was stated before, Japan's industry is undergoing a change. Promotion of new manufacturing industries and the investment for the last four years follow :

	1932	1933	1934
	(In ¥1,000)		
Gas	600	3,900	1,950
Spinning	11,000	65,200	71,108
Weaving	1,794	17,522	31,185
Chemical	73,096	169,780	203,910
Dyeing	500	100	1,725
Paper making	650	1,470	4,900
Mechanical and implement	14,585	37,740	66,820
Shipbuilding and dockyard	62,000	1,500	2,500
Ceramic	800	13,000	49,435
Metal	4,290	20,080	77,150
Brewing	400	5,900	16,810
Foodstuffs	6,355	22,463	6,750
Silk reeling	435	1,200	200
Sawing	400	—	700
Miscellaneous	3,720	8,175	14,954
Total	180,655	368,199	549,808

The extent of expansion of the spinning and weaving industries is remarkable, but that of the chemical industry was even more pronounced. Besides the mechanical and metal industries have cut a figure, while the gas, silk reeling, and foodstuff industries were stationary. Last year's total investment was nearly three times that for



1932. Why the industrial expansion has been so remarkable is ascribable to several reasons. The drop of the exchange rate following the replacement of the gold embargo, the progress of inflation incidental to the issues of deficit-covering bonds and the creation of a tendency to realize self-sufficiency, stimulated by the world situation of economic blocs and the menace of an economic blockade by the League of Nations on Japan following its withdrawal from the League were largely responsible for Japan's industrial expansion. And also it must be pointed out that a new market has been secured by Japan in the shape of Manchoukuo. Not only this new market has been created but Japan has opened many other markets abroad for the disposal of its goods. Great efforts also have been made by Japan in the constant study of rationalization of management and technique, increase of production, promotion of efficiency and so on. All these have helped Japanese commodities to establish their reputation beyond dispute abroad. The drop of the exchange rate and inflation of the munitions industry provided the direct background for the expansion of Japanese overseas trade, but the more important factors were in the rationalization of management and technique, and higher efficiency.

People in foreign countries who are not conversant with the real situation in Japan are liable to attribute the trade expansion solely to the drop of the exchange rate, but this is not a correct understanding of the situation. It is true the drop of the exchange rate has contributed largely to the trade expansion and domestic industrial prosperity, but this was not the whole story. Japanese industry had already been building itself up on a firm

foundation. The progress and improvement of Japanese industry were on the basis of manufacture of cheap-priced, but high quality commodities.

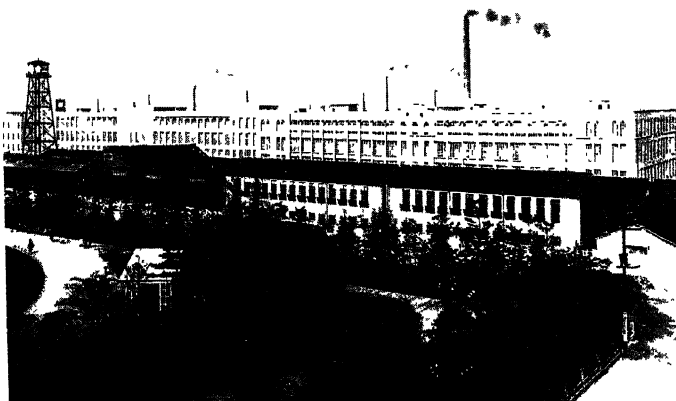
As the result of industrial rationalization by hard efforts, the production cost of various industrial articles has been considerably lowered. For example, the production cost of cotton yarn dropped by more than 40 per cent, that of rayon yarn by more than 60 per cent, that of wheat flour by 20 per cent, that of cement by 25 per cent and that of coal by 20 per cent. The low cost of production was re-enforced by the improvement of quality. It is quite natural under these circumstances that Japanese goods have found their way into foreign countries in large volume. The low exchange rate has simply accelerated this tendency.

#### **d. Social Dumping**

Social dumping was made an object of much discussion abroad in connection with the trade expansion of Japan in recent years. Although the world has been criticizing Japan for the alleged sin of social dumping—which means foreign labor to work for miserable wages in order to unload its product on the international market—and has been distributing masses of propaganda and raising tariffs and other trade barriers to stop Japan's commercial advance, the advantage of this country has been much less important than one would believe. It is true that Japan's exports have been rising when those of the rest of the world have been standing still or falling, but, Japan has been buying at least as much as it has exported, perhaps more.

From a world viewpoint, Japan has not been a

menace but a benefit. It is increasing the volume of trade, partially rushing forward under the lash of the depreciated yen, partially by its cheap and good products. For some time during the last two years much discussion was heard of the so-called social dumping of Japanese goods on the international market, but, as the result of a report submitted to the League of Nations by Mr. Fernand Maret, Vice-Chief of the International Labor Office of the League, who came to Japan and closely investigated the labor situation here, the foreign public has ceased to be fussy over the matter, accepting Mr. Moret's conclusion that social dumping is not the cause of Japan's trade advance. The drop of the external value of the yen and the exceedingly low wages in Japan are the principal themes of discussion on social dumping. At first, the advance of Japanese goods was severely criticized as exchange dumping as the result of the depreciation of the yen. These criticisms are not right. It is true exports increase when the exchange rate drops, but this is usually the case only in the initial period of the exchange drop. Meanwhile, prices go up on the one hand and import prices also rise on the other. All prices may not rise in the proportion that the exchange rate drops, but the prices of imports will surely go up in proportion to the extent of the drop of the exchange rate. In a country like Japan which must import an enormous amount of materials the effects of the depreciation of the exchange rate will be offset by the heavy imports. The exchange dumping has no lasting nature. The exchange rate has not made a marked drop in reality. It is true the exchange rate has dropped, but, frankly speaking, the yen in terms of the



The Seikosha, Ltd. the largest Watch Maker of Japan



The Head Office of the Tokyo Machine Works, one of the most up-to-date companies of the Kind.



dollar was artificially maintained at a high level against the real economic strength of Japan before the replacement of the gold embargo. The drop following the replacement measure made right the position of the external value of the yen which was maintained at an unduly high level. That the drop of the yen is not unreasonable can also be seen from the international position of prices of Japanese goods.

Comparing the index number of prices in Japan with the indices in Great Britain and the United States on the basic figure of 100 at the end of March, 1935, it pointed 98.9 in contrast to 95.7 in London and 102.2 in New York. All these considered, foreign criticisms against the serious drop of the exchange rate of the yen are not justifiable. Then, the low labor wage in Japan, which is a focal point of discussion of social dumping, is a matter to be taken up. Figures of comparison between Japanese and foreign labor wages show a considerably lower level in Japan, but the most important point of the whole question is why wages in Japan are so low. It is not right to define the final question by a mere comparison of superficial figures. Wages differ very much according to the nature of the labor not only in Japan but in all other countries. In order to be acquainted with the real condition of wages, one must study the situation from different angles.

Why wages in this country are so low is due to various reasons. In the first place, Japan has a surplus population and naturally the so-called labor reservists are ever in existence. Especially agricultural villages have a large number of these reservists. Farmers' income is miserably poor. These affect the labor wage situation. Secondly,

Japan has too many medium-sized and small commercial and industrial interests, both institutional and individual. Because of the family system in Japan, owners of business, their family members, their relatives and what not are engaged in jobs of one sort or another. They are not necessarily situated in the relation of employer and employes, and this makes the labor situation in Japan one that is very much different from that in Europe and America. Thirdly, a large number of female operatives is employed in large-scale industries, such as spinning, weaving, reeling and others. Naturally, these girl operatives do not engage in the work for a long time, because of marriage. Japanese factories also employ boy workers. Fourthly, Japan lacks natural resources, and this, combined with high land prices and high cost of capital, results in the reduction of labor wage, which constitutes a part of the production cost. Another matter that should not be neglected in this connection is that foreign countries, such as the United States, Canada, Australia and others, restrict Japanese immigrants and this has partially resulted in the surplus population. These conditions combined are standing against the elevation of the status of laborers. Therefore the Japanese labor wage situation is not only affected by internal affairs, but by overseas factors. If all these complicated conditions are carefully studied, one will not be led to believe that the labor wage of Japan is highly improper or forced and that capitalists are simply exploiting laborers. Careful attention also must be given to several other conditions regarding wages in Japan. In addition to payment of wages employers are forced to pay a fairly large amount of money for various items that are intended to serve their employes' welfare

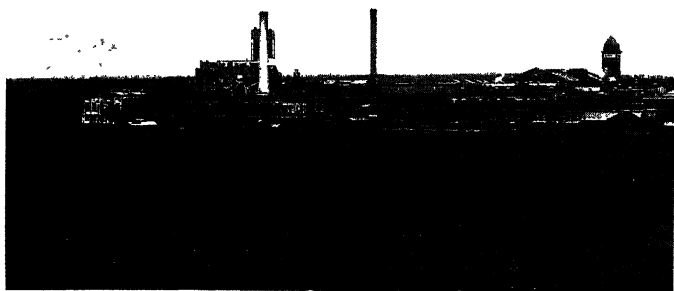
in the form of retirement allowances, relief funds, pensions and others of similar nature. There is also a wide difference in the conditions of living between Japan and Western countries. The cost of living in Japan is low and this fact naturally proves that the condition of living of Japanese laborers is particularly inferior to that of Western laborers and that the Japanese laborers are not made objects of exploitation by capitalists. If these matters are studied, labor conditions in Japan are not so inferior to those in foreign countries. All these considerations corroborate the fact that the criticisms directed against social dumping are not justified.

#### **e. Japan-Manchoukuo Economic Relations**

Japan-Manchoukuo economic relations will be referred to here because the future industrial activity of Japan depends to no small extent on the economic relations of the two countries. Since the founding of Manchoukuo Japan-Manchoukuo economic relations have been brought closer together and this situation is expected to last, considering their intimate and inseparable relations politically, economically, geographically and from military importance. But one thing that must be given special emphases in this connection is that Japan has no idea at all to monopolize the Manchoukuo market, as Powers are fearing Japan will do. Neither does Japan follow a policy of placing the Manchoukuo market under its sole control. The Manchoukuo Government in its "The Outline of Manchoukuo Economic Construction" lays emphasis on the exploitation of natural resources and the open door and equal opportunity principle in connection with industrial development. The object of Manchoukuo is to



import technique and experience of advanced countries for its industrial growth. From all these it can be judged that Manchoukuo has an idea to offer itself as a country open to the exploitation of all more civilized countries. Of course, Japan's relations with Manchoukuo are deep-rooted, considering their history, tradition and others. Japan is bound in duty to help Manchoukuo, which is also depending on Japan. An enormous amount of money is required for the economic development of Manchoukuo, but Manchoukuo must depend upon Japan for that at least for the time being. Japan on its part is seeking natural resources in Manchoukuo, as it lacks these. On this basis the two countries are inter-related. Manchoukuo serves as supplier of raw materials to Japan and also as a large consumer of Japanese goods. These economic relations are inseparable. The trade volumes of the two countries have gained considerably since the founding of Manchoukuo. New enterprises are beginning to prosper in Manchoukuo as the result of Japan's investment there. Their economic relations are bound to rise and fall together. Now Japan gets materials such as iron, coal, beans, salt, lumber and others from Manchoukuo. Japan also depends upon Manchoukuo for raw cotton and wool, but this is a matter for future solution. If these materials can be liberally imported into Japan, this country will be largely relieved of its long-pending problem of the difficulty of acquisition of raw materials. True to its mission to export manufactured goods abroad, Japan is exporting them to Manchoukuo. The economic relations of the two countries are thus readjusted. The two countries are bound together to solve various difficulties for their



The Tomakomai Mill, Hokkaido, of the Oji Paper  
Manufacturing Co., Ltd.



Part of the Interior View of a Mill of the Oji Paper  
Manufacturing Co., Ltd.



economic development, although this does not mean at all that Japan monopolizes the Manchoukuo market.

#### **f. The Future of Japanese Industry**

Japan's industrial development, as it is, has been realized within a brief period of only about 70 years. The country's unusual trade expansion in international markets however has met difficulties in recent years.

Many countries are raising their tariff walls against Japanese goods. This is a serious matter for the vital interests of Japan, who depends very much on its export trade for the development of its economic strength and increase of its national income. That the export trade interest is so situated is intolerable to Japan. Japan's industry is yet to develop. Its cotton spinning industry seems to have reached the saturation point but it still admits of more room for development with proper efforts by spinners. A great future is in store for Japan's heavy industry, chemical industry and various others which have begun to assert themselves in recent years. Industries which have depended much on imports are beginning to change their status as export industries. Japanese commodities have ample prospects to establish their reputation in foreign countries as cheap and low goods, if they are able to surmount difficulties lying in their way.

## AGRICULTURE IN JAPAN

- a. Agriculture, Symbol of Japan
- b. Tea, Stock-Breeding and Forest

### a. Agriculture, Symbol of Japan

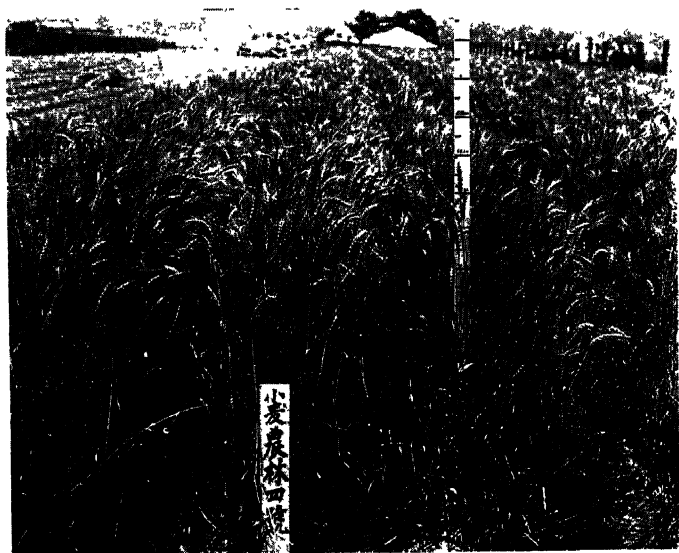
Agriculture used to be the chief pursuit of Japan. Rice, cocoons and wheat constitute the staple agricultural products of Japan and rice, especially, is the essential food of the nation. The land is, however, too narrow, and there is scarcely any room left for further expansion of farming. Moreover, there is a large portion of the land which suffers from weather conditions. The farming method of Japan is being gradually improved, because the extensive farming system is being adopted by the application of electric power, thus increasing to a certain extent the yearly output. The total area of Japan is 39,114,858 chobu (one chobu being 2.45 acres), of which the arable land represents only 15 per cent. The rural communities are classified into peasant farmers, middle class farmers, petty landlords and large landlords. Those who do not own any land of their own, or those who own under half a chobu of land belong to the class of peasant farmers. They are either tenants or half tenants. The number of families that own land of under half a chobu represent 39 per cent of the whole rural community, and yet the total area owned by such families represents those only 8.9 per cent of the arable land, from which it will be seen how small their possessions are. They and the tenant farmers

form the representative poor classes. Their families count four millions, with about 16 millions of people. Middle class farmers are those possessing land of from one half to three chobu in area. The lower strata of this class are cultivating their own lands in part and are half tenants. They are close to the poor class. The upper strata are landlords in a small way. The impoverishment of the rural communities is ruining the middle class farmer, especially the lower strata of the class. These middle class farmers represent 33 per cent of the rural community, and the area of land in their possession represents 40.8 per cent of the total area of arable land. It is, however, this farming class that constitutes the healthy middle class, the bulwark and backbone of the State. Those possessing from three to ten chobu of land belong to the petty landlord class. They are well-off farmers. They, together with the middle farmer class, constitute the characteristic class of the Japanese agricultural system, which is mediaeval, small-scale farming. This class, too, is fast declining through the general impoverishment of the rural community. This class and middle farmer class together form the middle class of the country. Owners of areas exceeding ten chobu are large landlords. The total number of families belonging to this class represents only one per cent of the total rural community, and yet the land owned by them exceeds 24 per cent of the total arable land of the country. It is discovered that there are two important problems confronting the present rural community; namely, the inroad of capitalism upon mediaeval and small-scale farming, and the class war between the landlords and the peasants. The yearly increase or

decrease of the farmers' income does not so much depend upon the crop as upon the price of products. On the other hand, their burdens in the form of taxes and interest are increasing with the years. The value of industrial products in the urban district is increasing by leaps and bounds, against which the purchasing power of the rural districts that mostly bears the brunt of the attack of bad times, which first of all deprive them of their purchasing power. There then ensues an excess of products in the urban districts and here will develop a difficult problem for Japan's capitalism. The trouble in the rural districts means that of the middle and lower classes. The poor class is increasing while the middle class is decreasing; apparently the bottom of the middle class is tumbling down into the poor class. The middle and poor classes try to alleviate their troubles by securing reductions in farm rent and here arise the farm disputes. In this case the rent is actually paid in cash equal to the value of the contracted percentage of the products. In case of paddy fields, tenants must pay landlords as rent half the products of their labor and in case of upland fields over 30 per cent of their crops. The impoverishment of the rural community is driving independent farmers to the tenant class or half tenant class, and the ruin of the middle class is the apparent tendency of the day. To save the situation, the Government has drawn up a scheme for maintaining and creating independent farmers. The Government established regulations for accommodating the tenant farmers with funds needed for the purchase of the land they occupy from the landlords. The funds are supplied out of the post office life insurance reserves to them



Tea Leaf Pickers at Shizuoka Tea Gardens



Wheat plantation in Japan. This is a scene at an agricultural station of the Ministry of Agriculture and Forestry.





through provincial public corporations. Farming in recent years has been an enviable occupation nowhere in the world. There is world over-production in practically every staple line. Prices have fallen and, where debts have been contracted, foreclosures have been common, Japanese agriculture has been no exception. Its problems appear to be relatively worse than those of foreign farming. It has a surplus of its own. It is oppressed by the decline in foreign prices. It has a tremendous debt burden. It is paying more than its share of taxes. In addition to all this, its unit farm is only about 2.45 acres in size, so that labor-saving and cost-cutting machinery can not be used. When Japan emerged from feudalism in the last decades of the Nineteenth Century, it adopted a policy designed to make it an industrial nation and a World Power. It was then predominantly agricultural. Nothing was more natural, therefore, than that it should tax farming, directly and indirectly, to pay the costs of industrialization. The first industries were aided with Government subsidies, paid by the farmers. They were given tariff protection. Again the farmer paid. He is still paying, even though industry is prosperous and he is sinking into a quagmire of debts. If the farmer's sole contribution to industrialization had been payment of taxes and tariffs, the situation might not be so bad. But the industrial program robbed him of means of livelihood. From time immemorial the Japanese farmer has followed a most rational system. He has not depended solely upon the soil, for even today he can work only about 200 days at his main occupation. He therefore has had sidelines and in former times managed to keep busy almost all year round. Industri-

alization has changed this. The farmer used to reel raw silk as a sideline. Most of that now is done by large plants. He used to spin cotton yarn and weave cloth of silk and cotton. Industry has taken over these occupations. Other important sidelines which have been removed are sugar planting and refining, the cultivation and preparation of natural indigo, the brewing of soy sauce and the manufacture of various articles of clothing, such as tabi, the socks with divided toes which Japanese wear with kimono. Complaints about the state of agriculture are no new thing. They commenced in the years following the Russo-Japanese War. But at that time the situation was not really bad. It merely showed signs of becoming so. These fears were realized in 1930, when demand for raw silk ebbed disastrously following the American stock market panic. Prices went off for silk. Rice followed it downward. Debt and tax burdens became oppressive to the last degree. In 1929, according to the Ministry of Agriculture and Forestry, value of agricultural production was ¥ 3,186,000,000. It fell to ¥2,156,000,000 in 1930 and to ¥1,800,000,000 in 1931. It came back to ¥2,182,000,000 in 1932, the most recent year for which full figures are available, but the gain was relatively trifling and was principally a temporary phenomenon, having to do with a timely advance in the price of raw silk. The deficit in farm operation was ¥1,248,000,000 in 1932. The total farm debt figures were ¥4,000,000,000; ¥4,800,000,000 and ¥4,717,000,000. The last means that the average debt per household was ¥837. And yet the total farm debt of 1912, according to the Finance Ministry, was only ¥746,000,000. The increase has been at the rate of

¥600,000,000 a year over 20 years, or more than ¥100 per household. In 1932, according to the figures above, average annual income per farm household of five-and-a-half persons was ¥388. The average household added ¥221 to its debts and owed ¥837. In former days the farmer made almost everything he needed, paid his taxes and his rent in produce and was only poor when he had too little produce, as when crops failed. Today, however, the situation is different. The soil has been worked over and over again and will not yield without the use of fertilizers. These must be bought. The farmer, moreover, must buy things he never bought before and must pay taxes in cash. Rent he still pays in produce. There is no shortage of crops. In fact, there is a surplus in all Japan. But the farmers are short of cash. They must rush to sell when the harvest is barely over. Even so, they cannot satisfy their many creditors. Small banks and credit associations go bankrupt. Money rates go soaring. Private money lenders charge usurious rates. Such conditions have led to the downfall of the middle-class farmer, the man who owns his own land and works it. In 1920 there were 5,570,000 farm households in Japan, including 1,742,000 owned by such ownerfarmers. The total number fell to 5,250,000 in 1922 and 1923. Then depression appeared in the cities. Country boys began to return to the land. Youths growing up found nothing to lure them to the cities. By 1932 the number of farm household had risen to 5,640,000. The gain has not been proportionate. In 1910 more than 60 per cent of the houses in Japan were in the country. In 1925 the percentage was 50 and in 1932 it was 45.3 per cent

For the first time since it started tampering with the rice market, immediately after the World War, the Japanese Government can see a profit in its market manipulations. Toward the end of 1933 the price of rice was about ¥22 a koku and the farmers were complaining bitterly. So a special order was passed and the Ministry of Agriculture and Forestry commenced to buy since for ¥23.30 per koku. This action sent prices upward but for a long time failed to pass the minimum set by the government, since the cost of discounting the official paper was deducted on each sale. Spinning and electric power are located largely in the country districts but these are notable exceptions. The Imperial Agricultural Society has started a new drive for tax revision, pointing out that the farmer pays a much higher percentage of the national taxes than the city dweller. The surplus of rice has been due only partly to improved methods of fertilization and cultivation. Mainly it has been the result of a determined drive on the part of the Government to make this country self-sufficient as to food. New areas, formerly devoted to forest or otherwise unfit for crops, have been opened up. In Korea, irrigation and afforestation have brought bigger crops. In Formosa water has been impounded in dams high up in the jagged mountains, so that more crops can be raised each year. The result has been bigger yields. For three years Japan has been self-sufficient—more than self-sufficient—as to food and for three years the farm crisis has been acute. In the realm of agriculture as in all departments of modern Japan's material development, abundant traces are found of official activity. This is based on the idea that though Japan is becoming one of

the foremost industrial nations of the world, agriculture still remains its basic industry. Great strides were made in its development after the Restoration, for the Meiji Government not only freed the farmers from many irksome restrictions under which they had been laboring, but adopted an enlightened policy of encouraging farmers by every conceivable means. Under the feudal regime farmers were restricted as to the kinds of their products, while certain of the favored were given license for the exclusive cultivation of sugar cane and a few other farm products. As the feudal clans strove after the attainment of a position of self-sufficiency in foodstuffs, the majority of farmers were compelled to center their energies on the production of rice and wheat, the main foods of the Japanese people. Like the Tokugawa regime, the Meiji Government concentrated its energy on agricultural development, but in a more informed manner. The export of rice was made free. The reason for the Government initiating rice exports was that it had decided to break away from the centuries' old custom of having taxes paid in rice and accept monetary payments only. It possessed a large amount of rice in its warehouses, confiscated from the Tokugawa Government, and this fact prompted it to dispose of its stocks abroad to prevent the drop of rice prices and avert the consequent blow to the Government finance. The Government consigned the rice to a British trading concern. The export lasted for two years to 1874 and during this period about 1,200,000 koku was shipped to Hongkong, Amoy, Shanghai, Swatow, Fukien, Sydney, London and San Francisco. The Government obtained about ¥4,900,00 out of this sale. The Meiji Govern-

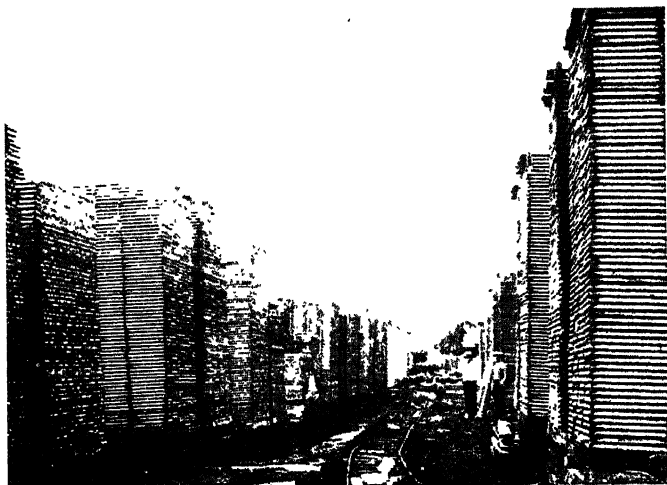
ment also established the Komaba Agricultural School, Tokyo, predecessor to the present College of Agriculture of the Tokyo Imperial University. The Government protection for agricultural development was thoroughgoing. The appropriation of funds, establishment of agricultural schools and experimental stations, importation and application of Western agricultural technique, plantation of sugar beet, sheep-raising, cattle-breeding and various other necessary steps for agricultural improvement were adopted. One of the problems of modern Japan is the supply of cattle. With a rapidly growing taste for beef—which, in former days, was not an article of diet—there has become a keen need for the country for a larger-scale stock-breeding. This is partially made a sideline of farmers.

#### **b. Tea, Stock-Breeding and Forest**

The majority of the farm products of Japan are for domestic consumption, but tea and raw silk only are exceptions. These commodities are active on international markets. Out of its total production of raw silk 85 per cent is exported. In case of tea, 45 per cent of its production is for export. Products such as wheat flour, pyrethrum and peppermint are also exported, but their export value is not very large. Tea production in Japan for 1933 was valued at ¥21,209,000, which was about a half that for 1919, due mainly to a drop of price and partly to the encroachment of black tea and coffee. Except for the Hokkaido and Aomori Prefecture, tea is grown everywhere in Japan, but Shizuoka Prefecture is the most important tea producing center of Japan, producing a half the entire output of the country



Drifting Lumbers on the Chitori River in Karafuto,  
the Japanese southern half of Saghalien



The Sunakawa Lumber Mill in Karafuto





and Shizuoka City is the tea market. The United States is the largest buyer of Japanese tea, and 60 per cent of the total exports is for that country.

The Soviet Union and Canada also buy it. Export tea for the Soviet Union is a special kind of tea known as "Guricha" and is not suited to home consumption. The annual tea production is about ¥9,000,000.

Annual production of cattle farming is ¥307,000,000, approximately. The number of cattle was 1,560,000 in 1933 and that of horses was nearly the same. Sheep-raising industry in Japan is poor. Because of its climatic condition, this industry will not prosper here. Poultry industry is very active. Annual production is about ¥70,000,000 for eggs. Japan is one of the few countries on earth favored with extensive forests. Since, however, its area is small, the area occupied by its forests cannot be compared with that of any large forestry countries such as Canada, the United States, and the Soviet Union; but if these countries are excepted, Japan occupies the first position in the world as a forestry nation. The percentage of the area occupied by forests and waste land is so large that only Finland and Sweden surpass Japan in that respect. There are as many as 1,500 kinds, of which principal forest trees alone number more than 100. In point of richness in variety, it occupies a high position even among countries which are favored with larger forest areas. Unfortunately this natural wealth is not well utilized and there is a tendency to cut down forests with no thought for the future. Forests in Japan stand in four different zones: sub-tropical forest zone, ever-green broad leaved forest zone, the deciduous broad-leaved forest zone and coniferous forest zone.

## FISHERY IN JAPAN

- a. Important Economic Position of Fishery
- b. Development and Status of Fishery in Japan
- c. Persons Engaged in Fisheries
- d. Export of Aquatic Products and Its Future

### a. Important Economic Position of Fishery

With annual productive value amounting to about ¥400,000,000 with certain specialists estimating it at ¥800,000,000, and with about 1,500,000 men engaged in it, fishery occupies an important economic position in Japan. This annual output of ¥400,000,000 is equal to the total mineral production or forest production. Estimating it on the basis of ¥800,000,000, rightly or wrongly, the amount corresponds to the total cocoon production. Japan is one of "Big Three" fishery countries of the world. The coast-lines of Japan are irregular and therefore long when compared with the area of the islands. The islands are also surrounded in some places by warm currents and in others by cold currents. Such being its natural position and surroundings the fishing industry naturally developed from of old until today Japan occupies first place in the production of aquatic animals and plants. These products consist mainly of fish, shell-fish, and seaweeds, which are used as food. But in addition pearls and corals are produced, while some fish are used for fish oil or animal fertilizer. Fish and shell-fish, of which the Japanese are very fond, are abundantly found in the coastal waters as well

as in rivers, ponds, marshes, etc. For centuries the Japanese have been familiar with aquiculture, though crude in form, and carp and gold fish were raised in ponds, while oysters and edible seaweeds were cultivated in the sea. Until recently fishing was mainly carried on in the coastal waters where herring, sardines, bonito, mackerel, tunny fish, shad, sea-breams, eels, flat-fish, etc. and shell-fish such as sea-ear, oysters, clams, etc. are found. More recently, pelagic fishing has developed with great rapidity, and not only are trawl fishing and whaling carried on with unusual enterprise but new methods of fishing such as the use of floating canneries, or crab-canning vessels, and the use of mother vessels for the catching of salmon and trout have been increasingly used. With the development of open-sea fishing the canning of crab and salmon is being conducted on a large scale, the products being mostly exported to different parts of the world. Today Japanese canned crab is dominating the American market, while canned salmon is finding a ready sale in Great Britain.

#### **b. Development and Status of Fishery in Japan**

The fishery industry in Japan is now run on a modern industrial basis and especially pelagic fishing is developing rapidly. In the past, fishing in Japan was mostly carried on along the coast by small boats with drag or stationary nets, but, owing to many difficulties met with in catching fish in this manner, coastal fishing is steadily declining. On the other hand, deep sea fishing, which is carried on successfully with motor vessels, has enlarged fishing districts and with the increase in the

number of motor vessels has made remarkable progress lately. As a result, fishing villages which have a large number of motor vessels engaged in pelagic fishing are suffering from a shortage of men, while in villages where coastal fishing in small boats is still carried on there are many men out of work, and these, hard pressed for work, are becoming coolies. However, coastal fishing is still the most widespread and as such gives the largest yields. The trouble with the present boats with oars is that they cannot go more than four or five miles from land, while in the seas beyond a distance of 5-10 miles, there are sardines, herring, mackerels, etc., in abundance. Therefore if small-sized motor boats were to be popularized, and improvements were to be made in the mode of fishing and in fishing implements, coastal fishing may return to the ascendancy. In any event there are bright prospects for further development as a vast fishing district stretching over 26,000 square miles is open. The coastal fishing occupied 93 per cent of the country's fishing interests in 1912, dwindled to 70 per cent in 1933, and is gradually sinking further. On the other hand, deep sea fishing has kept expanding its sphere of activity and gained from 6.2 per cent in the same year to 27 per cent in 1933.

The fishery production for 1934 amounted to ¥244,000,000 in Japan Proper. In addition, the production of crab canneries amounted to ¥7,000,000 and that of salmon and trout in Kamchatka amounted to ¥24,000,000. Of the total of ¥275,000,000, the production of coastal fishing amounted to ¥171,000,000 or more than 60 per cent. This fact reveals the importance of the coastal fishing, but the deep sea fishing is destined to

grow in importance in the future. The sphere of fishing activity by Japanese is very wide, occupying one-third of the world fishery grounds. It covers Behring Strait, Australia, New Zealand and the Indian Ocean. About 350,000 small fishing boats and about 13,000 small motor boats, with drag or stationary nets, are engaged in coastal fishing. The Hokkaido and Yamaguchi, Nagasaki and Shizuoka prefectures realize large catches. As regards pelagic fishery, large vessels with motors have increased greatly in number lately. There are over 10,000 vessels of over 10 tons, many of which are actively engaged in fishing at distances of up to 700 miles from Formosa and Japan Proper. The northern seas have been opened by floating crab canneries, and mother vessels for the salmon and salmon-trout fisheries. But there are still vast undeveloped areas in the Behring Strait, Okhotsk Sea, the Siberian Maritime Provinces, the South Seas, South China Sea, the Gulf of Siam, etc., so that the future for pelagic fishery for Japan is bright. The tunny fishing is done elaborately over a large area extending from the Bonin Islands to the Philippines, Borneo and Celebes. Whaling is going on along the Japan Sea coast provinces, in Kyushu and Korea.

For the coastal fishing in Japan Proper about 9,000 vessels with a total of about 200,000 tons and about 130,000 fishermen are mobilized each year. Whaling is being carried on by to the Norwegian method. As this method requires quick movements the vessels used are small below 110 tons. In order to allow whales to breed and also to maintain order in the work the Government has made it a rule that whaling can only be carried on under license. Furthermore, the Govern-

ment restricts the number of whalers to 30 in seas other than the Southern or Northern Pacific Ocean. It also orders vessels to operate from headquarters in 18 suitable places along the coast of Hokkaido, the North-Eastern Sea, South-Western Sea and the Japan Sea.

Trawling in Japan follows methods now employed in the North Sea. The steam vessels engaged are from 200-300 tons, some being fitted with Diesel engines. A permit must be obtained from the Government before commencing trawl fishing. At present the Government is restricting trawlers in the Inland Sea, the East China Sea and the Yellow Sea to 70 vessels. It also prohibits trawlers, by special regulations, from operating in the nearby seas in order to keep the coastal waters free from the destruction of immature fish. During the World War there was a fall in the catches by trawlers, but since 1921, trawling has again become active though the number is restricted to 70. Fishery in Russian waters is an important right conceded to Japan in the Treaty of Portsmouth, signed at the conclusion of the Russo-Japanese War of 1904-05. In 1928, a new convention, on the basis of the above treaty, was concluded for a period of eight years, after the expiration of which time the pact is to be renewed. The districts to be worked, extending from the Maritime Provinces to Kamchatka, are leased from the Soviet Union at annual auctions held at Vladivostok. In 1931 the number of fishing districts actually worked was 287, the number of steamers 193, sailing vessels 10, and the number of fishermen 17,240. The catch salmon, salmon-trout, and herring in 1931 was 305,133 koku and crabs amounted to 4,291,600. Good catches of salmon and salmon-trout



Crab Being Packed  
at Cannery



Crab Packing aboard  
Floating Cannery in  
Kamchatka



Middle: Catches of Salmon  
Bottom: Packing Factory of Salmon and Crab





are made every other year, while the quantity of crabs has a tendency to become smaller each year. The amount of salmon, carb, etc. canned was 814,391 cases, valued at ¥16,300,000 for 1931.

Crab fishing is carried on by vessels with machinery for the purpose of canning the crabs on the vessels themselves. The first enterprise was started in 1921 but many newcomers came in for shares and besides much damage being done to the cultivation of crabs the price of the canned product was in danger of being greatly reduced. In 1923 therefore, rules regulating the work of crab-canning vessels were issued by the Government, which also established districts where fishing was forbidden and made permits necessary before a vessel could set out. Recently, there has again appeared too many fishermen desirous of engaging in this and the Government has advised these to amalgamate. It has also revised the rules, restricted the number of vessels on the western coast of Kamchatka to 18 and the amount of canned crab to about 320,000 cases. Up to 1927, Japanese only were engaged in this fishing, but in 1928 two Russian vessels came, in another two entered in 1929, and 1930 and saw a further increase. An extensive merger of interests engaged in open sea fishery in Kamchatka was effected in 1934, by which the industry was stabilized. The conservation of fish and cultivation of aquatic resources are very important to Japan as fish and other marine products constitute a great part of the staple diet of its people. Great care and study are being given to aquiculture in the country, the incubation and planting of salmon and trout and cultivation of fish in shallow waters are being well looked

after by the Government. From 1926 on, not only the incubation of salmon and trout, but also the transfer of crawfish, shad and other fish was tried several times with assistance obtained from the U. S. A. In order to encourage the incubation of salmon and trout in public waters the Government issued in 1926 rules for encouraging aquiculture and decided to bear 70 per cent of the expense required when the incubation work was undertaken by various prefectures, or by fishery associations. From 1926 to 1929, the Government spent ¥793,560 for these purposes, and planted 601,940,000 incubated fish. In addition, aquiculture for both fresh and sea-water fish is carried out on a business basis by private interests in various ways. Work of this kind is increasing, but there is still room for extensive development as the area over which aquiculture is being carried out is only 1,000,000 chobu, one chobu being about 2.5 acres, which is only about 6 per cent of the total available area. The principal fish, shell-fish and sea-weeds which are now being cultivated are carp, eels and tortoises in fresh water, and sea-weed laver in sea water. The number of aquicultural establishments in 1931 was 151,565, the area covered 499,770,000 square meters and the products were valued at ¥19,128,000.

### **c. Persons Engaged in Fisheries**

The fishery industry in Japan is now run on a modern industrial basis and especially pelagic fishing, is developing rapidly. But by far the larger number of fishermen are still operating in the old-fashioned way, generally on a small scale. In 1933, as many as 1,499,000 men and women were engaged in fishery, and of

this number about 1,216,000 were males and 283,000 females. Classified as employers and employes, the former numbered 636,000, or 44 per cent, and the latter numbered 863,000, 56 per cent. That Japan's fishery has not yet developed as a great industry can be seen from this fact. Of the total number, 1,097,200, or 73 per cent, were fishermen, 257,000 were engaged in the manufacture of aquatic products and 144,000, or 9.7 per cent, engaged in cultivation.

#### **d. Export of Aquatic Products and its Future**

The total export value of Japanese aquatic products in 1934 amounted to about ¥72,300,000, corresponding to 4 per cent of Japan's total export value. Of this, the export value of canned provisions amounted to more than 70 per cent. Most of them were exported to the United States, Great Britain, Germany, France and Denmark. The greater part of the canned salmon, mostly red salmon, goes to England where our foothold has been strengthened recently on account of decreased production in Canada and the U. S. A. Canned crab is mostly demanded in the U. S. A. Exporters of fish oil have their best customers in England and the U. S. A. The future of Japanese export aquatic products is very promising. In addition to fishing in Russian waters Japanese fishermen are actively engaged in fishery along the Pacific coasts of the United States and Canada. Japanese fishermen in California have their fishing bases in Monterey, Terminal Island (East San Pedro), and San Diego. There are more than 1,000 fishermen in the Golden State, who own between them over 200 motor

boats many of which are run by large Diesel engines. All kinds of fish are caught for both fresh fish markets and canneries. The principal catches in Monterey are sardines for canning, the season running generally from August to the beginning of February. Sardines, bonito, mackerel and tunny for canning are chiefly caught in the waters near San Pedro. The sardine season usually begins in November and ends in April, while tunny and bonito are caught mostly in summer and mackerels are caught all the year round.

Tunny and bonito are the principal catches in San Diego. There are about 30 steamers with automatic refrigerating plants belonging to Japanese. Salmon fishing by Japanese in the Skeena and Fraser Rivers of Canada was started over 40 years ago. The enterprise rapidly developed and there are now more than 200 Japanese fishing boats licensed by the Canadian Government. Their annual catches for canning alone reach several million yen.

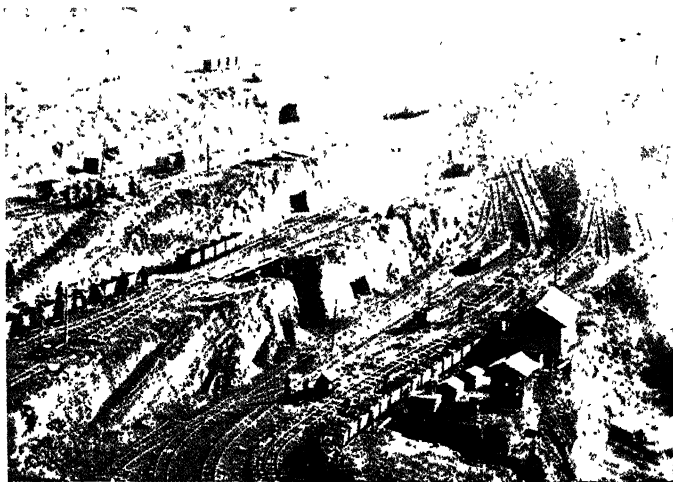
## THE MINING INDUSTRY OF JAPAN

- a. Mining Development Promised
- b. Coal Mining Leading the Industry
- c. Copper Mining
- d. Gold and Silver Mining
- e. Poor Oil Resources
- f. Sulphuric Iron Ore Industry
- g. Self-Sufficient Measures for Necessary Minerals

### a. Mining Development Promised

Mining was in practise even in ancient times in Japan as history shows. It was, however, greatly developed subsequent to the opening of intercourse with Korea and China, for, from that time, gold, silver and copper began to be used as coins and articles of personal ornaments. Gradually, the output of these metals increased and, for a time in the mediaeval ages, a fairly large quantity of gold and silver was exported abroad. With the establishment of the Tokugawa Shogunate in Yedo, the authorities who feared a great efflux of the precious metals from the country placed a ban on their export with the sole exception of copper. Consequently, the output of copper increased considerably and many copper mines began to be worked throughout the land. Toward the close of the Shogunate regime, the copper output appreciably declined, but it revived after the Meiji Restoration along with the rise of other lines of industry. The Government encouraged and protected copper mining. At the same time, the Government engaged the services of British, American and German mining experts

and miners for the purpose of furnishing our mining circles with knowledge and technique of modern mining. When the mining industry rose in and about 1886, the Government sold its mines, except the coal mine at Miike, the gold mine at Sado, and silver mine at Ikuno, to private interests, with the result that the industry was rapidly developed and began to assume an important position among other industries in Japan. Thereafter, with the improvement of mining technique and the increased demand for minerals and metals, the mining output steadily increased. Particularly, after the termination of war with Russia mining made remarkable progress, which was given an unexampled impetus by the phenomenal economic boom during and after the World War. In the days prior to the Meiji Restoration, picks and iron hammers were the only tools used in excavating tunnels above the water level in mines, but with the introduction of Western knowledge after the Restoration, scientific mining methods were adopted and the driving of tunnels and shafts was done by means of modern mining machinery. Especially, the development of the electric industry greatly improved mining methods. At the present time, dynamite and other powerful explosives, rock-drilling machines and others are used in Japanese mines. In refining metal ores too, most up-to-date methods are in use. Prior to the Meiji Restoration, all mines except those owned by the Shogunate were worked as private undertakings, but after the Restoration, for the reason that a large amount of fixed capital was necessary for their successful operations, they were combined under large mining companies. In and after 1906, the amount of capital and the number of mining compa-



The Open Cut at Fushun Colliery in South Manchuria. The coal deposits there amount to 1,000,000,000 tons. The upper seam consists of shales which are manufactured into shale oil. The daily output of coal at open cut is over 10,000 tons



Part of the Yubari Coal Mine, Hokkaido, managed by the Hokkaido Colliery and Steamship Co., Ltd.





nies notably increased. In that year their number was recorded at 165 with a combined capital of ¥181,366,000. In and after 1916, the refining of metal ores supplied from mines, a new feature in the management of the mining undertaking, was conducted in various parts of the country. Moreover, the mining industry in Japan was visited by an unexampled prosperity during the World War, and, as the result, the output of minerals greatly increased. In 1917, mining companies and their aggregate capital were registered at 288 and ¥445,810,000 respectively. An all-time record high was attained in 1920, when the total output was ¥641,300,000. A reaction came over mineral production after the termination of the World War and later as a result of economic depression and it declined to ¥240,000,000 in 1931. Energetic efforts had, however, been made by mining companies for the technical improvement, mechanization of labor and rationalization of management for a low cost of production during this period of severe ordeal. Reckless business competition also was laid aside. Efforts also were made for finding new resources. In spite of the economic depression the mining industry has realized a steady growth and the replacement of the gold embargo infused fresh vigor into it.

With surprising rapidity, this industry has stepped forward and this combined with the progress of the inflation boom, the execution of relief enterprises since the latter half of 1932, the active munitions industry and export goods manufacturing industry, has pushed it to a pinnacle of prosperity. Demand for all kinds of mineral products has suddenly become heavy. Mineral production in Japan for 1933 rose to ¥358,000,000, gaining

more than a hundred million yen over the 1931 production. Further gain was recorded for 1934. Leading mineral products in Japan are gold, silver, sulphuric iron, coal and petroleum products.

### **b. Coal Mining Leading the Industry**

Coal mining forms the center of Japan's mining industry. The value of coal production is 60 to 70 per cent of that of all mining products. The output in 1929 amounted to about 34,300,000 metric tons. The coal industry experienced more inactivity in 1931. Not only did it suffer from the depression in general business, especially shipping, but it was subjected to difficulties by the slackness of the export trade with China. To counteract the adverse situation, the producers were absorbed in effecting thoroughgoing renovation and advancing efficiency in general. In 1932 the coal output was about 20,000,000 metric tons, but, influenced by a financial revival, it has begun to increase since and finally in 1934 the output registered the record amount of 37,000,000 metric tons. Japanese coal used to be exported in a quantities to China, Hongkong and the South Seas, but the amount at present has dropped to about 1,500,000 metric tons from 3,000,000 metric tons before. This is partly due to a boycott movement in China and partly to an increasing demand at home. Coal imports have kept increasing yearly. The recent figure is about 3,500,000 metric tons. Imported coal consists of Fushun coal from Manchoukuo, Kaiping and Shantung coal from China, Hongay coal from French Indo-China and North Saghalien coal. Generally speaking, Japan is self-sufficient in coal. Imported coal is

from mining interests in which Japanese capital is most heavily invested, such as the South Manchuria Railway Company supplying Fushun coal, the Shantung Mining Company supplying Shantung coal and the North Saghalien Coal Company supplying North Saghalien coal. Hongay coal is anthracite but others are bituminous. North Saghalien coal is used for steel manufacturing and because of special purposes for which it is used, its import does not unfavorably affect the home market. Fushun coal, however is a great rival of home coal, as it is imported to a total of about 3,000,000 metric tons a year, but, as the demand in Manchoukuo has begun to increase heavily, it will no longer seriously affect Japanese coal interests. The coal price did not change widely on account of self-sufficiency, but, affected by a great increase in demand since the latter half of 1932 following the progress of munitions industry, the price has turned upward, although the extent of the rise is not so serious as is the case with other kinds of mineral products. The coal industry is thus contributing a great deal to the general industrial prosperity of this country. As regards the coal business control, the Japan Coal Mining Association regulates the amount of coal produced and marketed. It has been effecting an import agreement with the South Manchuria Railway Company on the import of Fushun coal. Finding it difficult to adjust the home market by means of control of the amount produced and marketed, it finally founded a coal sales control institution named the Showa Coal Company, Ltd. in January, 1933. Apart from these voluntary measures of control, the Government applied the Major Industry Control Law to coal industrialists producing or selling

more than 150,000 metric tons of coal in May, 1934, with the object of bringing about impartial relations of coal supply and demand and of maintaining a proper price. This means a state control of coal. Rationalization of business management had also been effected by coal industrialists to conquer the effects of the universal economic depression. As a result, the cost of production was lowered. Technical improvement was realized and the average daily output of coal per capita a day which was 1.5 metric tons in 1919 doubled to 3 metric tons for 1933. This efficiency in Japan is greater than that in European countries.

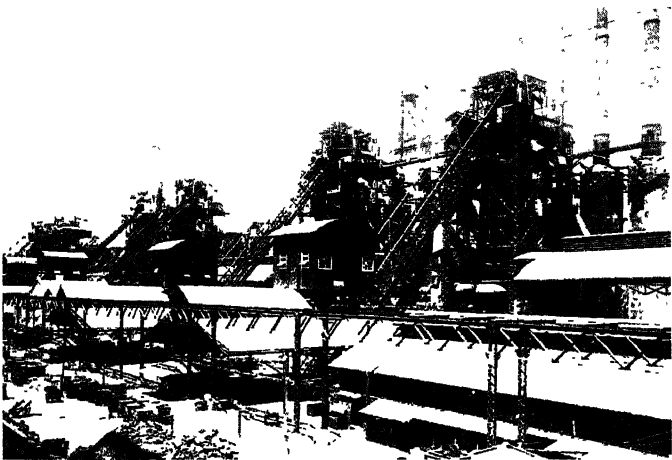
The coal deposits in Japan are estimated at 16,690,000,000 metric tons, of which 5,900,600,000 metric tons are known definitely, according to the Ministry of Commerce and Industry.

### **c. Copper Mining**

The copper industry is second only to the coal mining industry in importance and occupies the topmost position in the metal mining industry. Copper was one of the principal exports of Japan during the World War, being supplied to the Allies as munitions. The country produced it with the utmost energy, but the supply was short of the demand. Its output was 108,000 metric tons in 1917 and the export volume for the year was 72,000 metric tons. The demand dropped suddenly with the termination of the War. The market price dropped and the exports ceased. On the other hand, cheap copper was heavily imported from abroad. This placed the Japanese copper industry in a miserable situation. The Government came to its rescue and raised



Distant View of the Ashio Copper Refinery of  
the Furukawa Mining Co., Ltd.



Great Smelters at the Yawata Works of the  
Japan Iron Manufacturing Co., Ltd.

(昭和十一年二月十日下開要塞司令部許可済)



the copper tariff to ¥7 per 100 kin in April, 1922. This helped the copper industry but failed to restore the war-time prosperity. In the meantime, a sharp drop in American copper threw the Japanese copper market into depression. Japanese copper miners had to dump their products in Europe for about three years till the first half of 1932. The output later dropped to about 50,000 metric tons. Since the latter half of 1932 the copper business has assumed a brighter aspect, mainly because of the progress of provincial relief enterprises and the animation of the munitions industry. The demand rose rapidly and the market price went up, as the yen dropped. The business revival in America has also resulted in the rise of the price of electro-copper from 5 cents per pound to 9 and this in turn has caused the price in Japan to go up to over ¥70 per 100 kilograms. No need for export is felt, as the domestic demand continues to be heavy. Japanese copper miners have not relaxed their energy on measures to reduce the production cost, mechanization of labor, technical progress and improvement and various other means of rationalization. At Besshi Mine in Ehime Prefecture the manufacture of sulphuric acid out of smoke has been in practice since 1927. This will not only utilize the waste in copper refining process, but serve to remove the poisonous effect of smoke. This is a noteworthy technical matter in the Japanese copper refining industry. The Suiyokai is the central organization of copper mining companies in Japan. This was founded in 1920 and is now exercising control over the industry in the form of price agreements, sales quotas and production curtailment. The object is to prevent



reckless competition, to stabilize the market price, and to foreclose imports. That the copper mining industry occupies the premier position among Japanese metal mining industries since the World War is attributable to these vigorous endeavors of mining companies. This situation is naturally affecting the gold mining industry of Japan, for the majority of gold production enterprises in this country are connected with copper mining. The stabilization of the copper price also contributes to the development of the finishing industry of gold and brass.

#### **d. Gold and Silver Mining**

The removal of the gold embargo was effected in January, 1930, and the outflow of specie during that year reached ¥300,000,000. There was no sign of the outflow abating in the following year, and in consequence, the specie holding of the Bank of Japan dwindled to a very low ratio. All these adverse conditions gave rise to demands for the encouragement of domestic gold producing enterprises and resulted in the establishment of a Central Refinery Station and of other means for conducting research work. As regards financial assistance extended to the enterprises, it was so arranged that the Bank of Japan should advance low interest loans against mortgages on the gold produced. The suspension of the gold standard by Britain in September, 1931, greatly influenced the financial atmosphere of this country, which followed Britain's lead in abandoning gold, the effect of which was to augment the outflow of gold and intensify the tendency, which had become rampant throughout the country, of cornering and hoarding the metal. With the induction of the Seiyukai Cabinet in December, 1931,

the gold embargo was replaced at once and an unprecedented depreciation of gold in inverse ratio took place. In spite of this phenomenal rise in the price of gold the Bank of Japan's buying rate was not altered from the legal rate of ¥5 per momme (3.75 grams and there are 120 momme in a pound), which works out at ¥1.33 per gram. In 1931 the average price of gold in Tokyo was ¥1.37 per gram, affected somewhat by the expectation, all during the autumn, that Japan would depart from the gold standard. In 1932 the yen started to slip and the quotation went to ¥3.11 as an average for the year, followed by ¥2.69 in 1933 and ¥3.27 in 1934, the last being a gain of 240 per cent over 1931. At the end of 1931 Japan had only 101 gold mines operating. At the end of 1934 this number had risen to 305. Neither figure includes alluvial mining. The three years have witnessed gold rushed to Sanru in Teshio, Shizukari in Iburi, Ogane in Shikibeshi, Hokuryu in Kitami (all in the Hokkaido), Ogayu in Iwate Prefecture and Mochigoshi in Shizuoka Prefecture. During 1924 and 1925 Japan's gold production, including that of Korea and Formosa, averaged about 12,000 kilograms. The total rose to 16,000 in 1929 and to 18,742 in 1930. The gain since the re-imposition of the gold embargo has been startling. In 1934 the total was 28,300 kilograms and the value ¥80,598,000. Japan's gold output is negligible when compared with world production but rather important in Japan's own economy. Since 1929 Japan's output has risen 72 per cent and world production 35 per cent. Japanese mining engineers assert that the ores in the United States and Transvaal, the two most productive sections of the world at present, are already thoroughly

worked over and that their outputs are tapering off and probably will continue to do so unless great technical improvements, allowing greater recovery ratios, are made. Japan's mines are mostly located in virgin territory, where the terrain is not yet thoroughly known. Many of them have great chances for expansion. While gains have been made in Japan Proper, the boom in Korea is even more noteworthy. Silver in Japan is not produced independently, but is with either gold or copper. Its production therefore, solely depends on that of these metals. The output in 1923 amounted to 111,890 metric tons, but in 1932 it rose to 160,023 metric tons and further to 185,610 metric tons in 1933. The increase was in line with that of gold.

#### **e. Poor Oil Resources**

Japan has poor oil resources. The home yield of crude oil in 1923 was about 2,843,700 decaliters, which kept increasing until it reached 3,165,600 decaliters in 1930, but it was by no means sufficient to meet domestic demand. Notwithstanding a yearly increase in demand, output was unable to keep pace with it so that domestic production was only able to satisfy a small portion of the home consumption. With the annual development of transportation facilities in Japan, demand for oil has gained considerably and the present annual consumption is about four times that 10 years ago. The majority of oil consumed in Japan is imported from the United States, the Dutch East Indies and North Saghalien. It is not improper to say that the Japanese oil market intimately affected by oil conditions in the United States, which is the center of the world oil market. The oil price in

Japan should have risen after the replacement of the gold embargo, but as a matter of fact, it has gone off against this situation. This was caused by the fact that over-supply had dominated the Japanese market, as the result of the establishment and expansion of oil refineries and the consequent sales competition among oil companies. Recognizing evils in the way of the sound development of the industry, the leading oil concerns decided to effect sales control of gasoline to begin with. At the same time the Major Industry Control Law was applied to gasoline by the Government. Trouble broke out in the oil world of Japan more than a year before the Oil Business Law was enforced on and after July, 1934. In July 1933, the first shipment of Soviet gasoline entered this country through a Japanese organization. It applied for admission to the oil cartel which consisted of four Japanese and two foreign companies. Socony-Vacuum and Rising Sun Petroleum (a Royal Dutch-Shell subsidiary) who were in the cartel, refused to allow Soviet gasoline interests to enter the cartel. The objection was based on Russian confiscation of properties of both companies following the 1917 revolution. The two foreign companies started a price war to break the Soviet oil enterprise before it could establish itself. At first, the price of Soviet gasoline was 50 sen per gallon. The price ebbed to 35 sen and still a Japanese organization selling it did not break. In July, 1934, the organization was admitted to the cartel and the price returned to 40 sen. The companies wanted to send it back to 50 sen but the Ministry of Commerce and Industry would not allow them to do so. Heavy oil was allowed a maximum price of ¥450 ton, machine oil ¥3 per case and

kerosene ¥4.50 or ¥5 a case. The net result of the drive to force Soviet gasoline out of the market was that the Japanese organization got a quota of 1,200,000 units, 20 per cent more than he had asked, and that gasoline prices were chopped 20 per cent. Shortly after this settlement, the two foreign companies withdrew from the cartel in protest against quotas allotted to them by the Ministry. The Oil Business Law went into force on July 1, 1934, with the dual objects of encouraging the development of domestic oil refining and assuring national defense during a critical period. Effective April 1, 1935, oil companies were obliged to keep three months' supplies of imported oil in storage. After June 30, 1936, six months' supplies will be required. Domestic oils are not required to be stocked.

#### **f. Sulphuric Iron Ore Industry**

The sulphuric iron ore industry developed at a comparatively recent date and has kept progressing year after year. The production in 1923 was only 226,000 metric tons, which rose to 593,000 metric tons in 1928 and further to 903,000 metric tons in 1933. The 1934 output went above 1,000,000 metric tons. The majority of sulphuric ores are used as for manufacture of sulphuric acid, but the increase of demand following the rise of artificial fertilizer, rayon and celluloid industries has resulted in the present prosperity. The phenomenal development of the ammonium sulphate industry since the replacement of the gold embargo also helped place the industry in its present position. The present output in Japan is enough to meet the domestic demand and a surplus is now exported to Korea and Manchoukuo. The

amounts of sulphuric iron ores in Japan are enormous, so much that there will be no need to import them from abroad. Residues of sulphuric iron ores from which sulphuric acid is manufactured are utilized for making cement or in iron manufacturing. In order to prevent ruinous sales competition among manufacturers and traders, to maintain business control and the market price and to fix sales spheres, necessary measures are adopted by a special organization.

#### **g. Self-Sufficient Measures for Necessary Minerals**

The most important matter for the mining industry in Japan is how Japan can get permanent supplies of minerals, since this country lacks natural resources. One thing that stands in the way of a solution is the growing tendency of economic nationalism, by which foreign countries are pursuing a policy as far as possible of excluding the activities of other countries from their lands. There is no sign of alleviation in this tendency for the time being. As regards coal, copper, sulphuric iron ores and sulphur, Japan is self-sufficient, but mineral products more important for industrial and defensive purposes such as petroleum, iron, lead, zinc, tin, and nickel are inadequate. This is the way Japan is so anxiously seeking permanent sources of supply. To attain this object, the exploitation of resources, at home and abroad and the manufacture of substitutes are the alternatives. Geological investigation is made by the Government and private interests in quest of mineral resources. According to the Mining Law of Japan, no restriction is made on the acquisition of mining concessions and anyone may undertake mining

on its acquisition. This is part of the policy of encouraging discovery of mineral resources. Moreover, the Government gives various privileges to those who intend to undertake mining, such as exemption from taxes and others. The Government recently revised the Mining Law and added nickel and several other kinds of ores to its scope. Since 1927 the Government has been encouraging oil prospecting by giving an annual subsidy amounting to about ¥2,500,000. It is true Japan has poor mineral resources, but it has considerable variety of mineral products. The fact shows that no pessimism over the development of the mineral industry in the future is necessary. In overseas countries most of the promising mineral resources are now in the hands of Western countries, leaving no room for Japan to come in for a share.

However, if efforts are made Japan may be able to get promising resources which do not belong to other countries. Mineral ores are now imported from China, Malaysia and Australia as materials for iron manufacturing. Two-thirds of these imports are those produced in mines under Japanese management. In accordance with the oil concession in North Saghalien, Japan secured abundant oil fields which form important resources of the nation. It is fortunate that Manchoukuo has many mineral resources, which can be developed on a large scale by Japan by proper means. The most urgent problem is invention of substitutes for oil. Self-sufficiency of liquid fuel is most important for the country. Alive to the situation, the Government has been studying the problem. Substitute fuels include tar oil produced by low temperature distillation of coal, shale oil from the Fushun collieries



Gas Tanks of Tokyo Gas Co. at Tsurumi



Airplane View of the Oil Tanks of Ogura Oil Co.





in Manchoukuo, liquefied coal obtained by the high pressure hydrogen method and synthetic oil. The Fushun collieries under management of the South Manchuria Railway Company have an elaborate shale oil factory. The present annual output of this oil is 70,000 metric tons. The most promising source for realization of a substitute fuel is the low temperature tar oil. European countries, especially Germany, are trying hard to solve the fuel question by means of coal liquefaction. Japan, including its colonies, has abundant sources of coal. Manchoukuo also has boundless sources of coal. Because of this, the low temperature tar oil industry holds the most promise. Coal liquefaction is not only necessary for liquid fuel, but for greater utilization of the value of coal. The low temperature tar oil has gone through study and experiment at the Fuel Laboratory and Navy Fuel Department. In Korea, the Einan factory of the Chosen Nitrogen Company is exerting efforts to place it on an industrial basis. The Mitsubishi Mining Company has also decided to set about undertaking the manufacture of low temperature distillation at its Naihoro coal mine in Saghalien. Influential business concerns are watching a chance to enter this field of activity. The Government is now encouraging this industry by subsidization to establish it on a firm basis. Viewed in this way, the Japanese mining industry is bound to assume a more industrial aspect. Even at present the majority of iron ores are imported from abroad. Gold and silver ores are also brought from Korea and Formosa to be refined here together with those produced in Japan Proper. Crude oil imports have been heavy in recent years, while refined oil imports are decreasing.

## INDUSTRY

- a. Phases of Industrial Japan
- b. Spectacular Advance of Machine Making Industry
- c. Metal Industry, a Pride of Highly-Developed Industry of Japan
- d. Chemical Industry
- e. Fiber and Textile Industries of Japan
- f. Ceramic Industry of Japan
- g. Foodstuff Industry

### a. Phases of Industrial Japan

Japan had developed as an agricultural country since ancient days, but has undergone a revolutionary change in its national economy in recent years. Japan is still regarded as an agricultural country, because of its immense production of rice and silk cocoons and the greater portion of its population engaged in agriculture, but, in reality, it is more important as an industrial country. This can be seen from the expansion of Japanese industrial products in overseas markets. Statistics on Japan's national income, prepared by the Cabinet Bureau of Statistics, are eloquent. The income, classified by industries, for 1930 follows :

#### 1930 National Income

(In thousand yen)

Agriculture	1,883,195
Aquatic industry	189,548
Mining	249,534
Industry	3,483,011
Commerce	2,706,079

Transportation	841,316
Others	1,346,702
International investment and balance of business profit	(—) 63,600
Total	10,635,785

The industrial income amounted to ¥3,483,000,000 or 31 per cent of the total national income, in contrast to the agricultural income of ¥1,883,000,000. This is concrete evidence that Japan is an industrial country more than an agricultural country. The industrial status to which Japan has attained is the result of hard efforts for a comparatively brief period. The importation of modern industry into Japan was a matter of recent date, but, in spite of this, the country has grown into one of the greatest industrial countries of the world. The industrial progress of Japan is illustrated briefly by the following statistics :

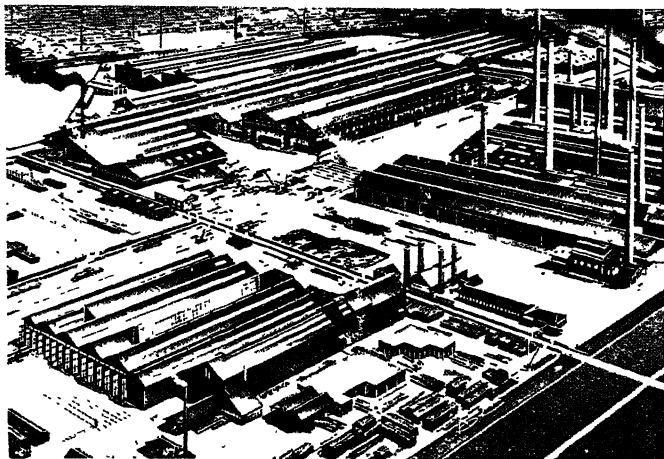
	Number of factories	Productive value (¥1,000)
1909	32,390	796,429
1914	31,859	1,397,680
1919	44,087	6,956,059
1929	59,887	7,716,798
1930	62,234	5,962,810
1931	64,436	5,174,579
1932	67,318	5,982,469

The above table excludes gas and electric power production. The years 1930 and 1931 witnessed a great decrease of productive value caused by the universal

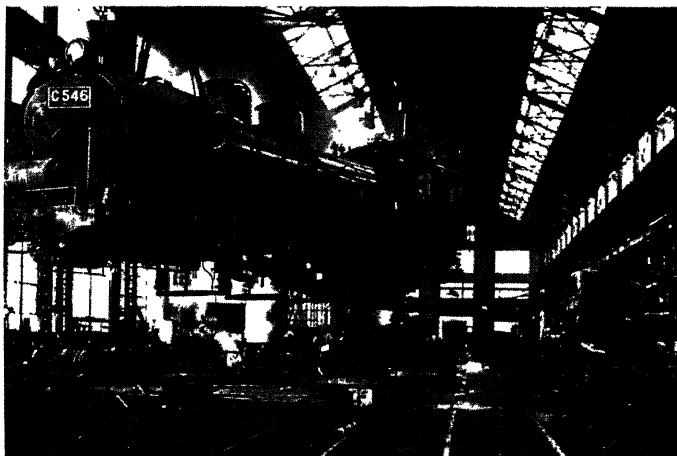
economic depression, but the general situation pointed the industrial activity. The productive value, classified according to the kinds of industry follows:

	1932	1930	1923
	(¥1,000)		
Spinning	2,028	2,028	2,587
Metal	591	526	317
Mechanical	544	616	392
Ceramics	160	159	181
Chemical	957	924	673
Lumber and woodwork	153	158	195
Printing and bookbinding	168	180	109
Foodstuffs	886	950	958
Others	233	194	232
Finishing and repairing wages	263	229	236
Total	5,982	5,963	5 881
Gas	613	831	158
	(million cubic meters)		
Electricity	10,585	9,406	2,877
	(million kilowatt hours)		

Spinning forms the center of Japanese industry and its 1932 productive value was 37 per cent of all, excluding gas and electricity, although it shows a marked decrease from the 1923 ratio of 46 per cent. The ceramic, lumber and woodwork, and foodstuffs industries also saw a decrease. The metal, mechanical, chemical and printing and bookbinding industries, however, experienced an advance. The chemical industry's production for 1932 was 16 per cent of the total productive value.



The Whole View of the Kawasaki Car  
Manufacturing Co., Ltd.



The Omiya Railway Workshops of the Japanese  
Government Railways



Thus, Japanese industry has begun to emerge from the domination of the textile industry into more progressive domains such as heavy industry and the chemical industry. If the 1933 and 1934 figures were known, this would be corroborated. The advance of the printing and bookbinding industry symbolizes the progress of Japanese culture.

#### **b. Spectacular Advance of Machine Making Industry**

Perhaps the most spectacular development of the past several years has been made by the Japanese machine and tool industry. When the Mukden Incident occurred, starting both devaluation of the yen and military preparations for the "crisis of 1935-36," Japan's spinning and weaving already ranked as a great world industry. Machine manufacture, however, was not so considered. The Mukden Incident changed all this. Instead of losing money in competition with imported machinery, the Japanese industry, aided by the exchange rate, commenced to make heavy profits. Ever since the Incident, Japanese military expenditures have been increasing steadily, rising from ¥406,000,000 for the 1931-32 fiscal year to ¥936,000,000 for 1934-35. The 1935-36 budget calls for ¥1,025,000,000, insuring still bigger orders for the machinery and tool makers. For 1934-35 army and navy orders to the civil industries totaled ¥316,000,000 and it is estimated that, if the same proportions hold during 1935-36, they will reach ¥356,000,000. Machinery and tool makers got ¥66,358,000 or more than 56 per cent of the ¥117,823,000 spent by the army during the 1934-35 year. The metal industry was a poor



second with ¥21,293,000 and was the only other industry which topped ¥10,000,000. Mention must be made of the fact that the depreciated yen has allowed Japanese machinery and tool makers to export. Much more important, however, has been the growth of the domestic business. Its field is really broader than that term implies. It covers everything from a wrench to a complete textile plant. Exports of machinery and tools to China, the East Indies, British India and other non-industrial countries have been rising. In 1932, Japan's exports of machinery and tools (and this category includes electric light bulbs) amounted to ¥26,000,000. In 1933 this figure was ¥46,000,000 and in 1934 ¥80,000,000. Until quite recently Japan did not export tools. It is still a greater importer, of course, for foreign nations have specialties with which the Japanese are not yet able to compete and there are many machines for special purposes which do not have enough demand here to warrant manufacturing in this country. In 1932 imports (including automobiles, automobile accessories, electric machinery, other machinery and tools) amounted to ¥75,000,000. The 1933 and 1934 figures were ¥86,000,000 and ¥120,000,000 respectively. Military and Commerce Ministry authorities are much interested to see Japan becoming self-sufficient in as many lines as possible and the latter are hoping that the domestic industry eventually will be able to squeeze out almost all imports. Recently, they made a survey of various imported lines which could be replaced by domestic products. In machinery and tools the results were: ¥148,343,000 for 1929, ¥91,342,000 for 1930, ¥59,094,000 for 1931, ¥61,293,000 for 1932 and ¥71,249,000 for 1933. After

the Restoration of Meiji, Japan introduced Western culture and methods and was bent upon developing its industries, but, it was impossible to manufacture various kinds of machinery and tools needed for the industrial policy. For instance, the Kagoshima clan imported cotton spinning machinery and started the manufacture of cotton yarn and the Tokugawa Shogunate opened a shipbuilding yard at Yokosuka and engaged the services of French experts for ship construction with machinery ordered from France. Early in the Meiji Era, the Home Ministry purchased different kinds of machinery for civil engineering works for the repair and improvement of harbors and rivers. Moreover, warships, merchant ships and many others were imported from Europe and America in those days. Locomotives and rolling-stock were also imported. Thus the introduction of Western civilization, culture, arts, science and all went on with astonishing rapidity, so that the people had no time to study, or make inquiries into them and were content to imitate. This was unavoidable in the early stage of our industrial development. With the passing of time, however, machinery, apparatus, implements and tools of various kinds began to be made in Japan, and, at the same time, the Government and people became conscious of the fact that the machinery industry had a very important bearing on industrial development and also that, in view of its natural conditions, Japan was not qualified to be a supplier of raw materials for industries abroad, but was destined to be an industrial country. As a result, the promotion and encouragement of the machinery industry was widely discussed. Realizing the need to assist the growth of the industry, the Govern-

ment took measures for the purpose of protecting it. For example, it promulgated the Shipbuilding Encouragement Law in 1897. The enforcement of the law was followed shortly by rapid progress in the shipbuilding industry throughout the country, and, in about a decade Japanese shipbuilders were constructing fine steamships and engines, which in turn, stimulated the advance of the manufacture of pumps of various kinds, electric apparatus, implements, measuring instruments, etc. On the outbreak of the World War, the Japanese machinery and apparatus industry made phenomenal strides. In 1914, its annual value stood around ¥100,000,000, but rose to ¥130,000,000 in 1915, ¥200,000,000 in 1916, ¥270,000,000 in 1917 and ¥820,000,000 in 1919, when the post-bellum boom was at its height. In 1914, the import and export of machinery amounted to ¥34,000,000 and ¥5,000,000 respectively, but, in 1920, imports totaled ¥150,000,000, ranking second to raw cotton and iron and steel materials, and exports ¥110,000,000, coming next to raw silk and cotton yarn and textiles. At present the Japanese machinery industry is by no means inferior to that of the advanced countries of the West in point of scale and the skill of engineers and experts. That the export value of Japanese machines and tools in 1934 realized an all-time record high of ¥125,000,000, nearly the same as the import value, can be taken as testimony of the great development of the industry. The export line is promising, taking into consideration future exports to Manchoukuo, the purchase of Japanese machinery by the Soviet Union in connection with the transfer of the North Manchuria Railway (Chinese Eastern Railway) to Manchoukuo, and the

prospective increase of exports to China.

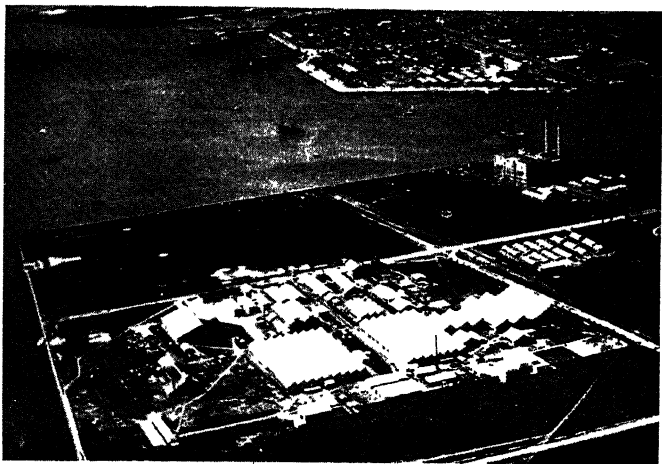
### Shipbuilding

The mercantile shipbuilding industry in Japan developed with the shipping business, while the development of warship building was mainly through the urgent demands created by the Sino-Japanese and Russo-Japanese wars. Owing to the construction of new vessels to be placed on subsidized lines, easy money and low interest rates, the shipbuilding industry which had been depressed since the close of the World War, revived and boomed temporarily in 1928. Tonnage output, which in 1919 amounted to as much as 674,000 tons, dropped to 53,000 tons in 1926. However, as the improvement was brought about artificially and not by general improvements in economic conditions, the industry soon became dull again, and was further depressed by the enforcement of the conditions of the London Disarmament Agreement. Naval orders to private shipbuilding companies were reduced by 30 per cent, which, together with the decreased orders from private transportation companies reduced the 1931 output to 81,000 tons. The real cause of depression in the shipbuilding industry in Japan is the absence of control over supply and demand, and a too great productive capacity. The actual capacity is over 600,000 tons, while about 300,000 tons would be enough, and it is claimed that there will be no permanent recovery in the industry until it is rationalized and redundant yards closed down. The peculiarity of the shipbuilding industry in Japan is that, in spite of its marvellously rapid development, it is still unable to get orders from abroad. The industry, there-

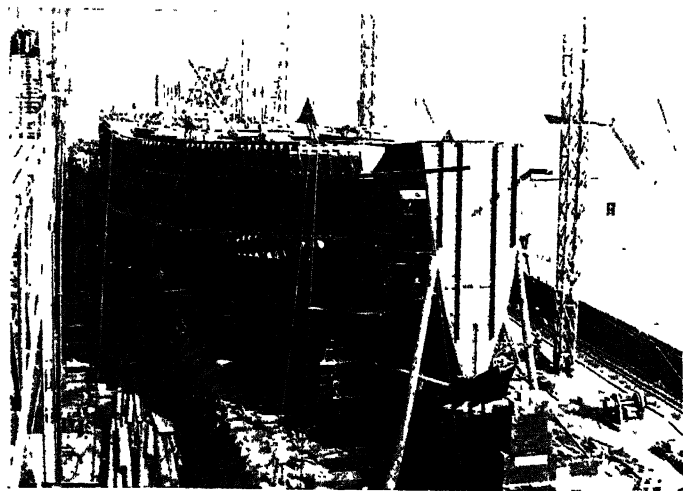
fore, is mainly controlled by the conditions of the country's own marine transportation business, or the policy of the Government. The year 1923 saw the heaviest demand for imported old vessels. This was due to the fact that the movement of cargoes was very active on account of the reconstruction work necessitated by the great earthquake of that year. Of late years, old vessels imported for carrying purposes have decreased while those to be used for scrapping have increased. In 1930, of the 10 imported vessels totaling 85,000 tons, all but one transformed into a floating cannery were scrapped. In 1931, this tendency was accelerated, and was further strengthened through the lower value of sterling caused by the departure of Great Britain from gold. Of 54 vessels, 273,397 tons, which were imported in that year, 28 vessels, 133,741 tons were imported after September.

### Engines

In materials, designs, and manufacturing methods, engine production has greatly advanced of late years, so that at present the engines produced are in no way inferior to imported ones. The use of engines has become more general and the horsepower generated has greatly increased. The number of mills with engines, in 1931, was 53,442 with a total of 7,246,520 h.p. Of this total, however, 2,940,319 h.p. was generated by electric motors, leaving engine-generated power as 4,306,201 h.p. Steam turbines generated 1,278,567 h.p., turbine water-wheels 2,251,913 h.p., steam engines 252,435 h.p., Pelton water-wheels 481,229 h.p., oil and gas engines together 35,787 h.p., and water-wheels of Japanese type 6,270 h.p. As far as horsepower is concerned turbine



The Nagoya Works of the Mitsubishi Aircraft Co.



A Ship in Course of Construction at the Kawasaki  
Dockyard, Kobe



water-wheels generated the most, 52.3 %, and steam turbine wheels came next with 29.9 %. Though large-sized steam turbines or water-wheel turbines were formerly imported from abroad, those up to 10,000 h.p. are now manufactured at home. In the above figures, small-sized oil engines are not included, though they are now being used in large numbers for agricultural purposes, some forty or fifty thousands of them already being in use. The manufacture of Diesel engines for steamers has also made a great advance, while the manufacture of small-sized oil engines has advanced so far that they are being exported in large quantities to Russia against keen competition from the United States. Steam turbines of superior quality are manufactured by the Mitsubishi, Kawasaki and Ishikawajima yards. Originally, steam turbines were used primarily for steamers and coal-using electric power-houses, but with the advance of cement manufacturing in Japan, steam turbines with 3,000 to 7,500 k.w. came to be installed in these mills. The Mitsubishi Heavy-Industries Ltd. manufactures steam turbines amounting to a total of 288,000 h.p. a year. The average horsepower of the turbines turned out by the Nagasaki Works of this company is 16,600 h.p., the largest turbine made by the same mill for operation on land had 35,000 h.p. while another for a steamer had 19,000 h.p. Pelton water-wheels and turbine-water wheels have made great advance with the increase in demand for motive power. They are manufactured by the Hitachi Works and others. Owing to the advance in the art of foundry work, water wheels of large horsepower are now manufactured. Wheels of a total of 160,000 h.p. were manufactured by the Hitachi



Works in 1929, the average h.p. per wheel being 5,600, the largest being 18,650 h.p. International combustion engines include gasoline, oil and Diesel engines. Of these, the manufacture of gasoline engines is on the decline, but experiments are being made to substitute charcoal for gasoline and much hope is entertained for its development, as the success of an engine of this type would prove of distinct advantage to the motor-car industry in this country, as charcoal is one of Japan's large products. (A) Oil engines. Oil engines are good for fishing vessels requiring about 30-32 h.p., and for agricultural work which requires about 3 h.p. The Tobata Foundry Works, Ltd. in Fukuoka Prefecture, and other foundries are noted for these engines. (B) Diesel Engines. Diesel engines are in great demand of late for steamers and factories. As Diesel engines are primarily used for steamers, the tendency is for them to be produced by shipbuilding companies. Niigata Iron works, which manufactures Diesel engines almost exclusively, produces them to the extent of 20,000 h.p. yearly. (C) Gasoline Engines for Motor-cars. Manufacturers of engine of this class are still small in number, Nissan Automobile Industry Co., Ltd., Tokyo Gas and Electric Co., and General Motors of Japan, Ltd. being among the few. Engines for automobiles are being produced under subsidies granted under the "Act for the Protection of Manufacturing of Motor Cars for the Army." Ishikawajima Automobile Co. is manufacturing them on a large scale, and is also producing cars modelled on the English Wolseley. (D) Gasoline Engines for Aeroplanes. Aeroplane engines are now being manufactured mostly by the army and navy, the Mitsubishi Heavy-Industries,

Tokyo Gas and Electric, Nakajima Aeroplane Manufacturing Co. and Kawanishi Aeroplane Manufacturing Co. Steam engines consume comparatively large amounts of fuel, and are not very well fitted to produce great power at high speed. Demand for them, therefore, is limited, and they are mostly used for producing motive power for pumps, engines for steamers, or for small dynamos. Osaka Iron Works has a capacity of 67,800 h.p. Ordinary steam boilers were made in Japan early in the Meiji Era, but water-tube boilers were mostly imported. In 1913, Mr. Taguchi invented a water-tube boiler which was not inferior to imported ones.

### Electric Machinery Industry

(1) Electric Motor, Dynamo and Transformer Industry. The manufacture of electric motors in Japan dates from 1873, when the Tanaka Works made telegraphic instruments to the order of the Government and established an electric machine factory. The Tanaka Works were purchased by the Mitsui Mining Company in 1893 and renamed the Shibaura Engineering Works. The generation of hydroelectricity in connection with the work of draining Lake Biwa in 1893 marked the beginning of the hydraulic industry in Japan. The water-wheel of Pelton style installed at the hydraulic plant established at Yumoto in Hakone in the same year was made by Mr. Shoichi Miyoshi. This was the first instance of the use of the water-wheel of European style made in Japan. Later, water-wheels of foreign-make, particularly American, were imported. About 1897, water-wheels of the MacCormick style were made by the Shibaura Engineering Works. The outbreak of

the World War forced the electric motor, dynamo and transformer industry to effect self-supply the same as was the case with other industries on the one hand and was, under the stimulus of great profits earned in the export of its products, rapidly developed to such an extent as to compare favorably with that of Occidental countries on the other. At present, there are a great many factories devoted to the manufacture of electric motors, dynamos and transformers.

(2) Telegraph and Telephone Machinery Industry. It was in 1869 that telegraphic communications were inaugurated in this country. In those days, the telephone was entirely unknown. The Government did much for the development of telegraphy and engaged the services of foreign experts for the training of engineers and for the extension of the telegraph system. All the necessary machinery was imported from European countries. In 1877, however, 10 telegraphic instruments were made in Japan after four years' study. This was the beginning of the manufacture of the instruments in this country. Later, in 1879, some private interests started the study of their manufacture, and began production about 1881. Today, except for some instruments of fine grades, all machinery and instruments required for telegraphic communications are made in Japan. (3) Electric Meter Industry. In 1910, the Electric Meter Law was issued, and meters for the calculation of charges were subjected to compulsory inspection of the Ministry of Commerce and Industry. At the time this inspection began, the meters in use were foreign-made, but, with the progress of electric undertakings and with the increase in demand for electric light, the demand for electric meters grew,

with the result that plants engaged in their manufacture gradually increased. The manufacture of voltmeters, wattmeters and galvanometers has been carried on in Japan for many years. As this branch of the industry did not require any large amount of capital, makers of these meters appeared in large numbers in different parts of the country, but today only those enjoying solid business and financial foundations are left.

### Vehicle Industry

Early in the days of railway traffic all the necessary locomotives and railway carriages and cars and trucks were imported from abroad. Following the railway nationalization in 1907, however, the necessity of self-supply of rolling-stock was felt and at the same time, under the stimulus of the striking advance of railway undertakings, many large car manufacturing companies were established one after another. Ever since, with the increasing demand for locomotives, the factories devoted to their manufacture have expanded their equipment and improved technical skill. With the increased electrification of railways in recent years, electric locomotives are being made in greater numbers. Passenger-cars have long been manufactured in Japan. After the rationalization of private railways, the supply exceeded the demand and the facilities for their manufacture have been directed to the supply of cars to suburban electric railways that have made big strides.

### Automobile Industry

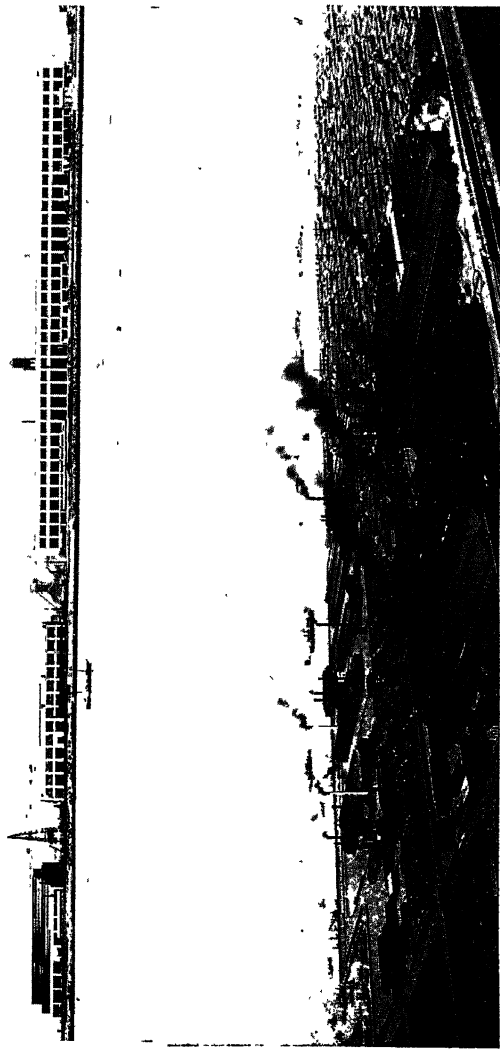
Before the gold embargo was replaced the domestic automobile industry was able to survive only because the

military protected it and aided it with subsidies. There was practically no production for the public. The military and the municipal bus lines bought almost everything turned out. In 1929 "home-made" cars numbered but 437. In 1933 the total was given as 1,800 and in 1934 the figure was 2,700. Many of these, of course, were trucks and tanks for the army and busses for the transportation system of the country.

Japan used to depend upon imported parts. The drop of the yen, however, doubled and tripled their prices and spurred domestic manufacturers to copy the imported lines. Now the market is 80 per cent supplied at home.

The progress of the machinery and tools industry of Japan served as the foundation for the development of the motor-car industry. That progress has been due in great measure to heavy military orders and to subsidies.

After the 1923 earthquake demand for automobiles rose rapidly. At the end of June, 1923, there were only 16,000 cars in Japan. The increase has been steady ever since, although the rate of gain slowed down during the years of the depression. Figures are given in the table below. In 1929 a total of 33,500 cars were sold in Japan. Of these, according to Japanese figures, only 437 were made in this country. Of the balance, 5,000 were imported already assembled and 28,000-odd were assembled here from foreign-made parts. Although the Japanese are making more cars of their own, the General Motors and Ford plants continue to lead the market, their supremacy hardly affected. In 1933 this market absorbed 17,790 cars. Only 10 per cent of the total were made here. The following table



Upper: Distant View of the Shibaura Engineering Works (Makers of Electric Machines)  
Lower: Head Office and Factories of the Kobe Steel Works, known for Manufacturing  
Munitions



was compiled by Wirtschaft Dienst of Germany and is given here in default of more up-to-date figures :

### Japanese Motor Production, 1933

Japan Ford (Yokohama)	}	16,000
General Motors, Japan (Osaka)		
Automobile Industrial (Tokyo)		800
Nissan Automobile (Osaka-Yokohama)		230
Kawasaki Rolling Stock (Kobe)		100
Mitsubishi Heavy-Industries (Kobe)		60
Tokyo Gas and Electric (Tokyo)		420
Japan Rolling Stock (Tokyo)		80
Others		100
Total		17,790

In order to encourage domestic makers to work toward selfsufficiency, the Japanese Government has been extending various aids. The first of these was the military subsidy system, started in 1918. Under this, subsidies are given manufacturers or owners of automobiles fit for military uses. They are liable to be commandeered in times of crisis. The second is the subsidy system of the Ministry of Commerce and Industry, applied to manufacturers of "standard" motor-cars. The so-called "standard" model was designed jointly by the Railway Ministry, Tokyo Gas and Electric Industrial Co., Ishikawajima Automobile and Dat Automobile in 1932, under orders of the Committee for Stabilization of the Domestic Automotive Industry in the Railway Ministry. Annual subsidies of ¥130,000 have been paid manufacturers of "standard" cars since 1932.

The domestic industry has also been helped by the tariff. This was raised in 1932, to protect domestic manufacturers of cars and parts. Before the change,



the rate was 35 per cent on cars, 25 per cent on parts and very low on engines. The new tariff is 50 per cent on complete cars, 42 per cent on parts and 35 per cent on engines. Under a special tariff convention, France gets a special rate of 35 per cent on cars and parts.

The table on domestic supply of completed cars, appearing below, does not agree with the German table used above. Readers are at liberty to take either 1933 figure. The lower figures are prepared by the Ministry of Commerce and Industry and are probably more reliable.

#### Domestic Supply of Complete Cars

Year	Imports	Domestic Production	Assembled in Japan with imported parts	Total
1929	5,018	437	28,087	33,542
1930	2,591	458	18,663	21,712
1931	1,887	434	18,908	21,229
1932	997	840	13,327	15,164
1933	491	1,800	14,084	16,375
1934	896	2,700	—	—

Japan's present automobile industry is still largely in the hands of Ford and General Motors, which both have large assembly plants here and fill most of the motor needs of the country. However, both use parts manufactured in Japan and Japanese companies for years have been doing a good business in exporting parts and accessories for Ford and Chevrolet cars. So great has this business become that the nation is convinced that there would be a good market for a Japan-made machine. It is now the experimental stage. Unfortunately for the success of the

scheme, the entrepreneurs seem to have started work with a most imperfect idea of the market in this country. Practically all cars in use here are devoted to commercial purposes. They are trucks, busses and taxicabs. There is almost no market for private pleasure cars. And yet the leading Japanese manufacturers are making small-type machines, suitable for nothing but pleasure use. In April, 1933, the Ishikawajima Automobile Works, which was founded in 1919, and the Dai Automobile Company, founded in 1921, were amalgamated as the Automobile Industrial Co., Ltd., with a capitalization of ¥6,500,000.

The Joint Home-Made Automobile Co., Ltd. was established in February, 1934, financed jointly by the Automobile Industrial Co. and the Tokyo Gas and Electric Industrial Co., Ltd. Capitalized at ¥1,000,000 it assembles cars from parts manufactured by the two parent companies, principally under subsidy of the War Office.

The Nissan Automobile Company, which grew out of the automobile department of the Tobata Foundry Company is capitalized at ¥1,000,000. It is said to have capacity to make 5,000 light cars, ¥6,000,000 worth of airplane parts and 20,000 Ford and Chevrolet parts a year.

These three companies are the biggest in the Japanese automobile field (of course, with the exception of Ford and General Motors) but leading machinery and tool makers have also shown an interest in motor making and cannot be overlooked.

The Kawasaki Rolling Stock Company and the Ohta Automobile Plant started work in 1931. Mitsubishi Heavy-Industries, Ltd., and the Kyosan Works started operations in the following year. In 1934 the Dowa

Automobile Company was founded in Hsinking. This is a ¥6,000,000 concern, financed by Japanese and Manchoukuo interests. The chief investors are the South Manchuria Railway Co. (¥2,800,000), the Manchoukuo Government (¥200,000), the Japan Automobile Company (¥240,000), Japan Rolling Stock Company (¥460,000), Kawasaki Rolling Stock (¥460,000), Automobile Industrial (¥460,000), Mitsubishi Dockyards (¥460,000), Tokyo Gas and Electric Industrial (¥460,000) and Nissan Automobile (¥460,000). The Dowa concern, which started work in April 1934, turns out standard-size cars, using parts manufactured by the concerns backing it.

The manufacture and export of bicycles is a thriving industry in Japan. Before 1913, accessories other than saddles, rims, and chains were made at home. Factories capable of manufacturing these latter articles on a large scale did not exist and it was impossible for small scale producers to compete against foreign products. From 1913 on, however, the demand for bicycles increased rapidly and as the manufacture of each of the above parts on a large scale became possible, bicycles came to be produced at a very low cost, though until the World War, those manufactured in Japan could not compete with European ones. During the War, the efficiency of manufacturing advanced to such an extent that domestic bicycles could well compete with imported ones, and not only were home demands satisfied, but the Japanese product was exported to China, Russia, India and many other countries. The bicycles now made in Japan are perhaps the cheapest in the world. Conditions in this country are well suited to the use of this vehicle and with increased demand it has become possible to produce

them in large numbers at a considerably reduced price. The factors which have made for the increased demand are that (1) individual wealth is comparatively small and the use of automobiles has not yet become common; (2) roads are mostly too narrow though greatly improved of late, to accommodate automobiles and (3) the making of bicycles, especially accessories like rims, is purely artisan's work, and is a type of work in which the Japanese are naturally skilled. The principal manufacturing centers are Tokyo, Osaka, Aichi, Hyogo and Ishikawa prefectures.

Many firms are engaged in the manufacture of motorcycles, using mostly imported motors and conveying parts. There are, however, a few motorcycles of entirely domestic make. Recently, the manufacture of three-wheeled motor vans has developed at a great pace in Japan. Most of the work, however, has been carried on in small factories.

### Aircraft

Captain Tokugawa was the first pilot to fly a heavier-than-air machine in Japan, in 1910, and since then, aviation has been carefully studied by the army, navy and civilians alike. In 1923, the Aviation Bureau, which had been under the War Ministry, was transferred to the Ministry of Communications, and arrangements were made for the control, protection and encouragement of flying.

The manufacture of aircraft was commenced in the army and navy arsenals and many aeroplanes were ordered by both military units from private companies. The manufacture of aeroplanes was greatly encouraged in this way and army and naval planes can be satisfactorily manufactured now. Air services and aircraft

manufacturing in almost every country have, since the World War, been protected and encouraged in various ways, by the subsidization of mail and passenger lines and aircraft manufacturing, and by the training of aviators. Aircraft manufacturing in Japan consists chiefly in making army and navy planes. Originally patents were bought from abroad and machines built according to these patents; but the art of manufacture has now greatly advanced, and recently both aeroplanes and engines of Japanese design are being built. At present the number of aeroplanes used for transportation by private companies is comparatively small. The machines used are mostly old army, navy or imported planes. The principal aircraft manufacturers in Japan at present are the Mitsubishi Heavy-Industries; Kawasaki Shipbuilding Co., Aichi Clock and Electrical Co., Nakajima Airplane Manufacturing Works; Kawanishi Aircraft Co., Ishikawajima Airplane Manufacturing Works; Tokyo Gas and Electrical Co., Fujikura Kogyo Co., and a few others.

### **c. Metal Industry, a Pride of Highly-Developed Industry of Japan**

The consumption of coal and iron is often taken as a standard measuring the extent of industrial development of various countries. In this sense, the development of the metal industry, centering on iron and steel, is often regarded as the standard of industrial growth of Japan. Japan had hitherto centered its industrial development on the textile industry but the situation in recent years has undergone a change. The important position the metal industry occupies among Japanese industries is beginning to affect the general industrial situation of Japan. The

productive value of the metal industry of Japan for 1932 reached ¥591,000,000, or 9.88 per cent of the entire industrial production (except for electric power and gas generation) amounting to ¥5,982,000,000. This ratio is in striking contrast to only 2.75 per cent for 1909. The iron and steel industry forms the center of the metal industry. Out of the total metal industrial production for 1932 amounting to ¥591,128,000, iron and steel production amounted to ¥211,000,000, 36 per cent of the total. If the production of other items such as rivets, castings, nails, etc. is included, the total will go above 60 per cent.

### Iron and Steel Industry

Almost every factor has helped the upsurge of Japan's iron and steel industry. Long the orphan child of Japanese economy, subsisting on Government subsidies and continually wailing for protection, steel in the past three years has come into its majority, piling up immense profits and wiping out the deficits from long years of unprofitable operation. The reasons for the change have been those which have brought prosperity to many other Japanese industries but none, unless it be rayon, has benefitted in greater measure than steel. First, the decline of the yen has kept most imports out of the country. Second, the low yen has stimulated other industry and aroused new demand at home. Third, the expanded military budgets have been used to a large extent on equipment containing iron and steel. Fourth, the development in Manchoukuo has included construction and railway building, and most of the needs have been supplied by Japan. Fifth, these developments have been

concurrent with a scheme of the Communication Ministry to subsidize the building of new freighters if old bottoms are scrapped. The result has been a jump in rolled steel production from 1,662,000 metric tons in 1931 to 3,233,000 tons in 1934. In rolled steel Japan is self-sufficient now, but that is not the entire picture. Japan must make exceedingly heavy imports of ore, pig iron and scrap. In 1933 this country turned out only 320,000 metric tons of iron ore and consumed more than 2,000,000 tons. Most of the imports came from China and the Straits Settlements. Imports for 1934 gained to 2,312,908 metric tons from 1,523,625 tons for 1933; 1,482,406 tons for 1932; and 1,549,919 tons for 1931. Japan for 1934 turned out 350,000 tons of ore. The peak of 378,114 tons was registered in 1918, when outside iron supplies were cut off and Japan was forced to take care of its own needs as best it could. Japan usually imports more than 98 per cent of the iron ore it uses. In pig iron it imports only 22 per cent.

Roughly speaking, Japan's iron ore supply for 1934 was 2,250,000 tons. But Japan's domestic production of pig iron was 1,935,827 tons, making it obvious that a good deal of the scrap imported must have found its way into pig iron. Presuming the net recovery from ores to have been 30 per cent and the ore output of Japanese and Korean mines to have been about 700,000 tons; this country, had outside supplies been cut off, would have supplied only 210,000 tons or 7 per cent of its needs. The boom which visited the steel industry in this country following the gold embargo is illustrated by the upward curve of Japan Steel Tubing, considered the leader of the private steel makers. In 1931, before the embargo was replaced,

this stock stood at ¥5.60. By the end of 1932 it had hit ¥73, going to ¥138 by the end of 1933 and recording a high of ¥156 during 1934. It closed at ¥141 and at the end of March, 1935, was ¥114. The decline since the first of this year was due to general expectation that the Government would reduce its protection of iron and steel and make the steel producers subject to a surtax on their profits. Another reason was the feeling that the military will not have an easy time with the 1936-37 budget, since the 1935-36 appropriations were passed by the Diet only after lengthy bickering. If the military budgets are reduced next year, the steel makers will naturally suffer, for their current prosperity is linked closely with the supplying of army and navy materials. Three years ago all steel companies were passing dividends. Last year their distributions ranged from 15 to 30 per cent. So great is the present demand for pig iron that the Japan Iron Company has been unable to increase its capacity enough to care for it. This company, the result of a merger of the leading iron smelters of the country and the Imperial Government Steel Works, produces 95 per cent of the pig iron made in Japan. In 1934 it turned out about 350,000 tons more than in 1933, but imports remained at almost the same level. During 1935 iron and steel are expected to go forward rapidly. Military expenditures in the 1935-36 budget will be ¥1,025,000,000, compared with ¥920,000,000, for the 1934-35 fiscal year. Accordingly, shipbuilding, machinery and automobiles are expected to need more steel and experts place the increase in demand at 300,000 tons. Four new plants will commence operations in Manchoukuo (the Showa Steel



Works, the Anshan Steel Materials Company and branch factories of Japan Steel Tubing and Sumitomo Steel Pipe) and accordingly Japan's exports to the neighboring empire will be reduced by an expected 70,000 tons. However, this decline is negligible when placed beside the expected rise in domestic demand. Japan Iron intends to increase its pig iron output by 350,000 tons, steel ingot production by 320,000 tons and production of rolled shapes by 260,000 tons during the coming two years. The Ministry of Commerce and Industry recently gave permission for the erection of a 1,000 ton blast furnace. Japan Iron is expected to boost steel shape output by 130,000 tons this year alone. Other companies have erection of additional blast furnaces in prospect. It is estimated that total Japanese production of steel shapes will rise to 3,600,000 tons in 1935. Japanese iron and steel making is thoroughly cartelized. The Ministry of Commerce and Industry has the right to control the private manufacturers under the provisions of the Major Industries Control Law but so far has not applied them. It probably would have done so had it not anticipated, shortly before the amalgamation which resulted in the formation of the Japan Iron Company, (in February, 1934) that concern would dominate the market and make other forms of control useless. The Government has the bulk of the shares in this company, for the Imperial Government Steel Works was the largest unit in the merger. The Pig Iron Joint Sales Guild continued to import and to take over the output of the other members, with the result that there was a rush of buyers to buy from Japan Iron. Among other associations for the industry are the previously-mentioned Pig

Iron Joint Sales Company, which sets prices for all producers save Japan Iron ; the Joko Bunya Kyoteikai, or Association for Deciding Sales Territories for Steel Bars ; the Kozai Rengokai, or Union of Steel Materials' Associations, and the Kwanto Kozai Hambai Kumiai, or Kwanto Steel Materials Sales Association. In addition to these there are district organizations. Mention must be made of the organization of the Japan Iron Company, which was founded in February, 1934, by the amalgamation of the Imperial Government Steel Works and six leading private concerns. It has a paid capitalization of ¥260,000,000 and controls 95 per cent of Japanese pig iron production and nearly 50 per cent of steel shapes output. While it has failed so far to control the market, it has broken up the agreement of the Joko Bunya Kyoteikai regarding sales territories for reinforcing bars, a serious setback to the cartellization of the industry. The change of Government attitude toward the iron and steel industry has been interesting. Now that it no longer needs special protection, the tendency is to force it to lower prices. A bill to reduce the tariffs on steel products was introduced in the recent Diet session but failed of passage because of a jam of other business.

### Other Metal Refining Industry

The metal refining industry other than copper in Japan does not amount to much. There were at the end of 1934 only 10 zinc refining factories, eight lead factories, 18 aluminum factories, eight tin factories and 93 brass factories in Japan. Demand for these metals is not heavy. Demand for lead for 1933 totaled only 73,291 metric tons, for tin 4,472 metric tons and that

for zinc 63,183 metric tons. Of the above, lead imports were 67,254 metric tons, or 90.7 per cent, tin imports 3,507 metric tons, or 78.4 per cent and zinc imports 32,526 metric tons, or 51.4 per cent. Production of aluminum and other kinds of light metals has been gradually increasing in recent years. These metals are demanded most heavily for the booming munitions industry. The aluminum industry is still in its infancy in Japan, but has ample promise for future development under the stimulus of the munitions industry. The Japanese aluminum industry is in its initial stage of development. The Japan Electric Industry Company produces alumina out of materials brought from Manchoukuo and then manufactures it into aluminum. This is now the only concern manufacturing it. The Nichiman Aluminum Company is beginning to start operations with alum ore produced in Korea. The South Manchuria Railway Company is planning a similar enterprise in Manchuria. The Japan Aluminum Company been formed, and with bauxite imported from the Dutch East Indies, will commence operations next year in Formosa. This company will be the most elaborate one when it starts business. Electric power necessary for the operations will be supplied by the Taiwan Electric Power Company.

#### **d. Chemical Industry**

##### **Outstanding Advancing Industries**

The Japanese chemical industry has realized rapid progress qualitatively and quantitatively in recent years and more pronounced development is promised for the future. Japanese industry formerly centered around raw



Upper: Whole View of the Head Office of the Japan Musical Instrument Company in Hamamatsu, Noted as Japan's Largest Institution of the kind  
Lower: Factories of the Japan Porcelain Company (Nihon Toki K. K.) in Nagoya, the Capital of Central Japan



silk, spinning and rayon, but the situation is beginning to change. In line with heavy industry such as the metal, machine and tool manufacturing industries, the chemical industry is steadily forging ahead. Newly-developed industries are mostly chemical. The advance of heavy industry and the chemical industry shows the highly-developed condition of the industrial system of Japan. It also indicates Japan's emergence from the period of reliance on foreign industries. Domestic goods thus produced are finding their way abroad. This is a wonderful industrial change for Japan during the last several years. Of course, the industrial development has not yet reached such a stage that the country need not import manufactures from abroad, but there are many domestically-made articles produced in ample quantity to meet domestic needs and which, in small quantities, are exported. This situation has been brought about by the combined factors of experience, scientific attainment, invention, technique, management, capital, labor conditions, Government protection and others. There was a time, during the World War, when Japan exported a large amount of goods of its own manufacture. This was not because Japanese industry was fully developed, but was caused by unnatural industrial expansion. The heyday was shortlived. The reaction dealt a stunning blow to Japanese industries and their foundation was shaken almost to a point of destruction. Great doubt was once felt that the country's industries would ever recover. During those days of ordeal Japanese industries were trimming sail for the future. The foundation for the present activity was consolidated then. Industrialists and laborers were united then in their endeavors to put their

house in order, to build up a modern industry on a firm basis. These efforts have borne fruit in the present prosperity, in which the chemical industry is sharing now, although the fact must not be ignored that the reimposition of the gold embargo in December, 1931, was another influential factor. Criticisms in foreign countries against social dumping by Japan do not consider this fact.

### Position of the Chemical Industry

How the chemical industry stands in the general industrial position of Japan can be seen from the "Factory Statistics," prepared by the Ministry of Commerce and Industry on all factories employing more than five workers. According to the Statistics, the number of chemical industrial factories at the end of 1933 was over 4,000, with 163,000 workers and the annual production valued at ¥1,288,000,000. The Statistics cover 10 kinds of industries of Japan, such as spinning and weaving; metal; machine and tools; ceramic; chemical; lumber and woodwork; printing and bookbinding; foodstuffs; gas and electricity; and others. The chemical industry comes sixth in the number of factories, but was third in number of workers and second in productive value. This is because the chemical industry is conducted by large-scale factories. The spinning and weaving industry came first with the total productive value of ¥3,870,000,000, the third position was occupied by the foodstuff industry with ¥1,017,000,000, the fourth was the machine and tool industry with ¥880,000,000 and the fifth was the metal industry with ¥878,000,000. The number of chemical industrial companies at the end of

1933 was 2,431 with a combined paid-up capitalization totaling ¥807,000,000. The first position was occupied by the gas and electricity companies with the total paid-up capitalization of ¥2,236,000,000 and the second the spinning and weaving industry with ¥873,000,000. The chemical industry was a good third. Its total paid-up capitalization gained ¥114,000,000 over the year before. If reserves and other assets were added to it, the total capitalization would be about ¥1,300,000,000. This position the chemical industry occupies will affect the all industrial interests to considerable extent. According to the Hypothec Bank of Japan, the average profit ratio of about 300 chemical industrial concerns for the first half of 1934 was 18.4 per cent, the highest of all industries, and their average dividend rate was 8 per cent, also the highest. The profit rate advanced by 13.4 per cent and the dividend rate by 4.7 per cent over the first half of 1931, prior to the replacement of the gold embargo. Below is given the general descriptions of the newly-developed chemical industries of this country :

### Nitrogen Fixation Industry

Nitrogen forms one of the three most important elements of fertilizers, the other two being phosphoric acid and potash. It is absolutely necessary as material for gunpowder, medicine, dyestuffs and ice-making. This industry has prospered since the World War. As fertilizer, nitrogenous fertilizer is used far more than nitrate of soda, bean cake and fish fertilizer. Nitrogen fixation is a representative method for making ammonium sulphate. Various methods of manufacturing, the Haber system and others, are used here for ammonium sulphate manufacturing. The number of such factories, including



those now under construction, is 28 with a total productive capacity of 1,530,000 metric tons, of which 95 per cent is produced by means of the nitrogen fixation method. All methods other than the calcium cyanide method are generally called the synthetic ammonium sulphate system. Exports of ammoniates used to be about 10,000 metric tons a year, but it increased to 89,000 metric tons for 1933. On the other hand, imports decreased from 380,000 metric tons to 150,000 metric tons following the increase of domestic production. The nitrogen fixation industry is qualified for development in Japan where a liberal amount of electric power can be had. A new ammonium sulphate manufacturing method by means of gas coke is being experimented with by a few companies in this country and this may revolutionize the ammoniate industry. Japan looks forward to a prosperous export business in ammoniates. Ammonium sulphate can be said to be the only artificial fertilizer consumed in this country which has made steady gains from year to year. This is due to its adaptability for all kinds of food products other than legumes and to the ease with which it can be handled. Bean cake, in particular, has lost ground. Superphosphates are struggling under the rural depression. Domestic productive capacity at present amounts to about 2,000,000 tons but all of it is not worked.

### Dyestuff Industry

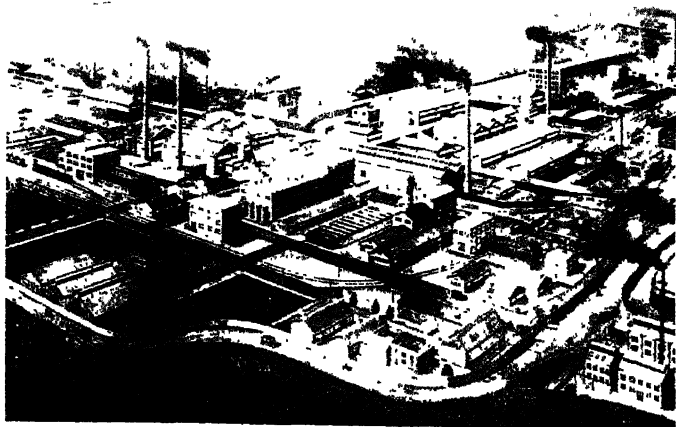
Like most of the European countries, Japan looked to Germany for its supply of dyestuffs before the World War; but, with the entire suspension of their import from that country with the outbreak of the war, the dyestuff

industry rose suddenly in this country. As was the case in other advanced countries of the West, the Japanese Government encouraged the manufacture of dyes by granting subsidies to the companies engaged in this line, with the result not only that more than 280 kinds of acid dyes, direct dyes and sulphuric dyes were made in this country but they were comparable to and, in some of them, even excelled German products in quality and price. The Law for the Encouragement of the Manufacture of New Dyes was issued and under such a stimulating measure, the industry has made steady progress and new dyes of diverse kinds are being made one after another. Much energy is being directed to the manufacture of alizarine, aniline and artificial indigo. These dyes made in Japan not only prevent foreign products from entering the domestic market but are being exported to China. Production for 1933 totaled ¥22,000,000. The Japan Dyestuff Manufacturing Company is the largest manufacturing concern. In 1916 production was 1,205 metric tons, but now it has reached 15,000 metric tons. Exports have tripled. By weight, this country now produces more than 95 per cent of the dyes it uses and has come to be the fifth most important producer of the world. It is true that imports of dyes are worth more than exports, but the difference is gradually being cut down. The only reason Japan imports dyes is because this market is too small to make production of all varieties economically desirable. It is cheaper to buy certain rare kinds in foreign markets than it is to make them here. Still, this consideration, due to the decline of the yen, no longer has the force it used to have and Japan is steadily expanding the number

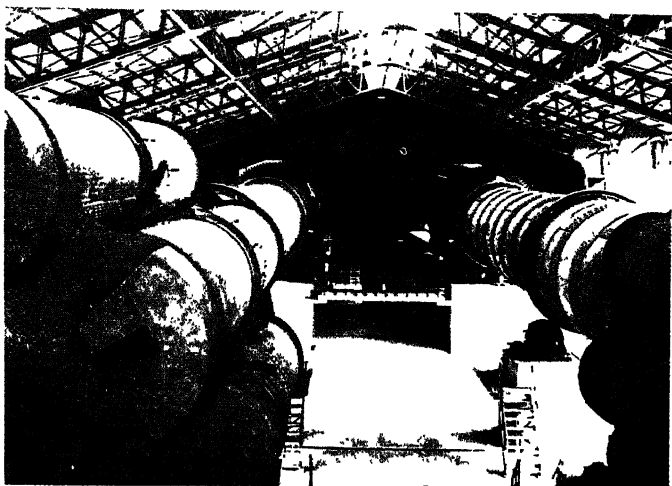
of dyes it makes. Back in 1928 Japan ranked sixth among the dye producers of the world, topped by Germany, the United States, Great Britain, France and Switzerland, in that order. In 1933 it passed Switzerland and took fifth rank, followed by the Soviet Union and Switzerland.

### Soda Industry

Since early in 1935 Japan has become almost self-sufficient as to soda. This tendency has been gradually evident since 1933, because of an increasing demand for caustic soda and glass. In 1930 the domestic production was 103,000 metric tons and imports 120,000 metric tons, with a total supply of 220,000 metric tons. The domestic production advanced to 558,000 metric tons in 1934, while imports dropped to less than 50,000 metric tons. Thus the domestic output gained six times, reducing the imports below a half the 1930 amount. Since a few years ago, this country has been exporting nearly the same amount of imports. Soda ash was demanded to the amount of 200,000 metric tons for caustic soda making, 65,000 tons for glass making and 25,000 tons for making chemicals. The demand for caustic soda gained five times over 1932. This is due to the signal development of the rayon manufacturing industry. The present position attained by the soda industry owes a great deal to the rayon industry. Before the gold embargo was replaced imports took care of about half the Japanese demand and the domestic manufacturers were hard put to it to find profits from operation. The embargo changed all this. In the two years following reimposition of the gold embargo, leading manufacturing companies using the



The Head Office and Factory of the Miike Dye Works,  
Managed by the Mitsui Mining Company, Ltd.



Rotary Kiln, 2,743 × 54,868 Meters, at the Kawasaki  
Factory of the Asano Portland Cement Company



ammonium system increased output tremendously. As was already said, higher demand from the rayon industry was the biggest factor for increasing domestic soda consumption. All producers are working near capacity, which is still being enlarged.

### Paper Manufacturing

Japan has no large sources of pulp, but the production and exportation of foreign-style paper are very active. The production of nine companies, which are members of the Japan Mill Association, for 1934 amounted to 1,592,000,000 pounds and their sales 1,606,000,000 pounds. The demand was heavier than production, due to an increasing domestic demand and export trade. Since the absorption of the Fuji Paper Company and Karafuto Industry Company by the Oji Paper Manufacturing Company a few years ago, the paper industry of this country has been perfectly controlled, being one of the thoroughly controlled industries in Japan. However, Japan must annually import about 15,000,000 tons, worth about ¥2,400,000, but in the future wood pulp produced in Karafuto, Korea and Manchoukuo combined will be enough to make Japan self-sufficient. The cellophane industry has gained a firm position here in recent years. Its monthly production is about 1,500 reams. Its future is rosy.

### Fat and Grease Industry

Japan has about 100 factories engaged in this line of industry. Vegetable oil is made from Manchurian beans and Japanese rapeseeds. In addition to bean cake as fertilizer, Manchurian beans have been made into food-

stuffs in recent years. Animal oil is mostly made from fish, serving as material for glycerine for making soap, candles and gunpowder. Fish oil is replacing tallow imported from Australia. The domestic production for 1933 was 86,000 metric tons, enough to meet the domestic demand and to permit the export of 23,000 metric tons. This is also one of the industries that achieved a considerable growth through the replacement of the gold embargo. The solidified oil industry is bound to develop increasingly in Japan where fishery is going on extensively.

### Celluloid Industry

Japanese celluloid articles are in great demand in overseas countries. The production for 1934 amounted to 9,600 metric tons. Products are toys, tooth-brushes, bracelets, combs, hair pins, spectacle rims and others. Annual export value totaled nearly ¥30,000,000. The 1934 production in Japan topped the world, followed by the United States with 5,800 metric tons, Germany with 5,000 metric tons, Great Britain with 2,400 metric tons and France with 1,500 metric tons. Japan's production was nearly 40 per cent of the world's. The Dai Nippon Celluloid Company produces 64 per cent of the total domestic output.

### **e. Fiber and Textile Industries of Japan**

#### Excellent Industrial Position in the World

The fiber and textile industries still are in the center of the modern industries of Japan. Newly-developed industries such as the heavy industry and chemical industry are beginning to assert themselves in the industrial

world of Japan in recent years, but they are not yet powerful enough to outstrip the hegemonial position the fiber and weaving industries occupy. Japan's industrial interest cannot be done well without these industries. The fact that they have developed to this point is in large measure due to the adaptability of the Japanese people to these special types of industry, and abundant supply of cheap labor, favorable climatic conditions, brisk domestic consumption of products, the propinquity to large foreign markets, the constant efforts of manufacturers, and the protective policy of the Government. The Government and private firms have co-operated in furthering technical improvement by the rationalization of production by large mills and by production control and improvement in the quality of products through the organization into industrial guilds of the smaller mills. This development and co-operation enables Japanese mills to supply the world's markets with goods of excellent quality at reasonable prices. The course of development which an industry takes in any country by ignoring these conditions, failure is liable to follow. Viewed from various angles, the fiber industry occupies the most important position among the modern industries of Japan. The 1932 production by factories, each employing more than 5 workers, amounted to about ¥2,212,000,000 occupying less than 37 per cent of the entire factory production of ¥5,982,000,000 for the same year in Japan. In the same year the number of operatives engaged in all factories was 1,733,000, of whom that of operatives in the fiber and textile industries was 880,000, more than a half the total figure. Japan's export value for 1934 amounted to ¥2,172,000,000, of



which that of fiber products was ¥1,059,000,000, nearly a half the total. To be exact, of the export value of fiber products, cotton textiles amounted to ¥492,000,000, raw silk ¥287,000,000, rayon textile ¥113,000,000 and others such as woollen textiles, cotton yarn and rayon yarn combined constitute the remaining amount. As to imports, raw cotton totaled ¥730,000,000 and wool ¥186,000,000, with an aggregate of ¥917,000,000, for the same year. Of the same year import value of all totaling ¥2,282,000,000, these imports amounted to about 40 per cent. In both exports and imports the fiber industry occupies a very important position.

### Cotton Spinning Industry

Not only in the fiber industry, but in the domestic industrial circles as a whole, the cotton spinning industry is placed on an outstanding position. Although of relatively recent birth, the beginning of this industry dates from 1863, when Prince Shimazu, the feudal lord of Satsuma, imported spinning machines from England to encourage the industry. In 1869, a factory equipped with 2,000 spindles was founded by that feudal lord at Sakai near Osaka and in 1872 Mampei Kajima of Tokyo established the Kajima Spinning Mill run by water power at Takinogawa, Tokyo. These were the earliest efforts recorded in the Japanese spinning industry. Hand work was later replaced by machine work. About that time, Japanese cotton yarn was exported abroad, and in 1892 it was seen that the Japanese product was far outrivalled in Chinese markets. But the amount exported gradually increased, and by 1894 the Japanese yarn gained a place in Chinese markets and established itself side by side with

the Indian products. To summarize the development of the Japanese spinning industry, the rivalry between hand craft and machine existed until 1887, the struggle against Indian goods in Chinese markets lasted until 1895 and after this the endeavor to find markets throughout the world lasted until 1905. At the beginning of the World War the spinning business was at first unfavorably affected, but its foundation was made secure by the merger and reorganization of factories and with a long duration of the war the demand from abroad increased heavily, the exportation to China, India and the South Seas being tremendously multiplied. The industry was greatly damaged by the effect of the post-war reaction. Production curtailment was discussed, but was opposed to on reason that cotton goods were the necessities of the nation. The millowners lost their excuse of over-production by the great earthquake-fire of 1923. Since that calamity they had been forced to operate without curtailment. The damage inflicted by the quake and fire was very serious, but they struggled so hard for recovery that within one year their capacity was restored to normal. An unexpected event occurred in 1925. It was a large-scale strike at several Japanese mills in Shanghai fostered by the upheaval and manifestation of anti-foreign sentiment throughout China. The beginning of the Japanese spinning enterprise in China was the establishment of a mill in Shanghai by the Naigai Cotton Company in 1911. Since then several large Japanese spinners established mills there and in Tsingtao. In 1925 Japanese, British and Chinese spinners interested in the Shanghai spinning industry organized an association to promote their interests in the transportation of Indian raw cotton. At

the end of 1912, cotton spinning companies in Japan numbered 25, but gained to 33 at the same time of 1917 and the end of 1919 saw the number increased to 48, which further increased to 60 in 1922. Although, in the first half of 1931, Japanese cotton spinning circles were more or less animated due to the improvement in the export of cotton textiles and activity in the home market, the aggravation of the anti-Japanese boycott in China following the outbreak of the Manchurian Incident in September that year brought about such a decline in exports to that country that they practically ceased. Later, with the stabilization of conditions in the Far East consequent upon the founding of Manchoukuo, the industry gradually tended toward normal and showed activity in the export to China. The member of cotton spinning companies at the end of 1934 was more than 70 with the total spindles of about 9,500,000. These mills consumed over 3,000,000 bales of raw cotton during 1934 and the yarn output reached 3,470,000 bales. In 1868, the Meiji Restoration, the spindles were only 5,400, which increased to 8,200 in 1877 and to 76,000 in 1887. After the Sino-Japanese War the number grew to 870,000 in 1897 and after the Russo-Japanese War it advanced to 1,500,000 in 1907. The World War gave a great stimulus to the industry and the spindles increased as much as 3,680,000 in 1920. The majority of these spindles consist of rings, mules being only 4 per cent of all, as they are used primarily for spinning wastes in low counts. There are so few of them that they hardly enter the production picture at all.

## Technical Improvement and Progress

Not since the middle of 1929 had the Japanese cotton spinning industry operated without restrictions on output. These are voted by the Japan Spinners' Association and rigidly enforced. The percentages are cut from 24-hour operation, with two Sundays off per month. A certain percentage of spindles is sealed and then two additional holidays are given the operatives. The combination of these two curtailments gives a percentage on production curtailment. In 1933 the average output of yarn was 1.99 per worker per month. In 1934 it was 2.04 bales. The output per day per ring spindle is now only climbing back to the levels which obtained between 1926 and 1929. The reason for the decline in the years between was, of course, the switch from coarser to fine yarns. The reason for the present gains, which parallels a steady movement into finer counts, is the technical improvement of the mills. High draught rings are taking the place of old rings. Moreover, mill labor is losing its floating character. Girls who originally enter the mills to earn dowries are staying for longer times, until their prospective husbands can afford to marry them. This makes for more efficient labor and higher output. Another interesting trend is the downward movement in coal consumption. This, of course, is due almost entirely to the movement toward electrification. The once flourishing yarn export trade has vanished. Other countries can undersell Japan in foreign markets and at times even in the Japanese market but only in yarn, not in cloth, in which a greater percentage of the production cost is labor. There are 62 members of the Japan Spinners' Association. This organization reports on the yarn out-

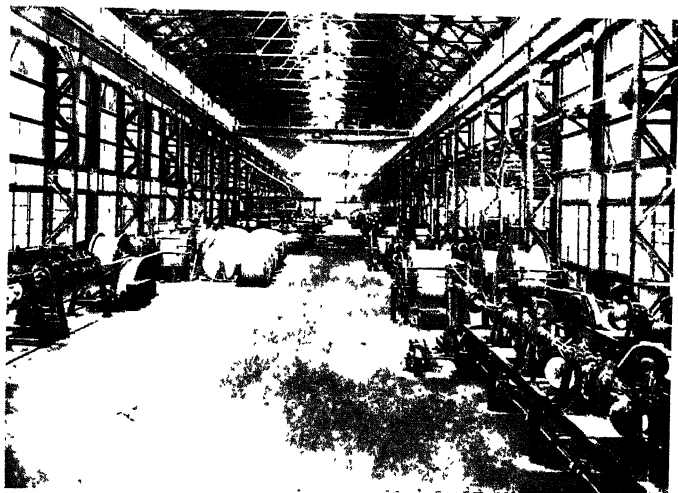
put of 10 outsiders, which among them have but 11 mills and paid capitalization of only ¥10,400,000. But these are all spinners, some of whom also weavers. It must be remembered that less than a third of the cotton yarn consumed in this country is taken by the spinning mills in their cloth production. The balance goes to hundreds of little weaving plants, scattered all over the country. Some of them are one-loom sheds, worked by a family as household industry. Cotton yarn made at Japanese cotton spinning mills is, for the most part, 20 counts, following in the order of importance by 16, 14, 30, 32, 40, 42, 60 and 80 counts. From any point of view, 1934 was a year of progress for the Japanese cotton industry. Every single index of activity and profit showed a strong and wholesome advance. Raw cotton is mainly imported from the United States and India and less from Egypt and others. It may be safely said that today the Japanese cotton spinning industry is practically occupied in the manufacture of cotton textiles, and, therefore, the rise or fall of the industry depends on the growth or decline in the export of these textiles. The output of cotton cloth, including knitgoods and other products on a cloth basis, for 1934, amounted to 6,455,000,000 yards, the largest in recent years, in contrast to 5,749,000,000 yards for 1933, 5,173,000,000 yards for 1932, 4,943,000,000 yards for 1931 and 4,633,000,000 yards for 1930. The number of weaving looms installed in the spinning mills was 76,600 in 1932 and that of looms in various weaving districts 352,300, with an aggregate of 428,900. In 1883 the total production of the country was worth only ¥2,400,000, but in 1907 it gained 50 times and at one time during the World War the output

reached more than ¥1,000,000,000. The 1934 productive value amounted to about ¥874,000,000. The invention of automatic loom in Japan has contributed a great deal toward the development of weaving industry in Japan.

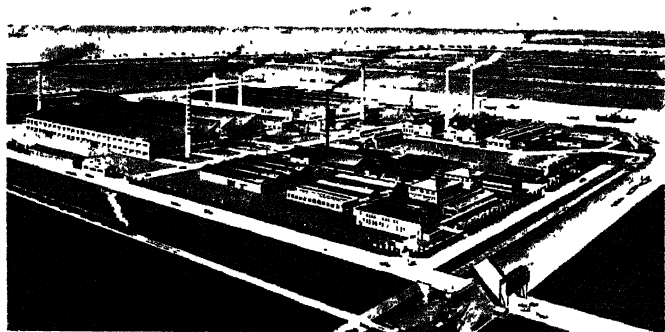
### Export of Japanese Cotton Cloth

Up to the outbreak of the World War, the export of Japanese cotton textiles failed to reach one half that of cotton yarn, but, during and immediately after the war great gains were made, and exports valued at over ¥200,000,000 found their way into the markets of China, British India, the South Seas countries, the Near East, Africa and South America. Early in 1935 a fairly large amount of cloth was exported to the United States and startled New England weavers. Subsequently, however, the cotton textile export trade fell off on account of the world-wide panic and the international tariff war, but the industry succeeded in tiding over the difficult situation and has since continued to develop, chiefly aided by the change in manufacturing policy, namely discarding the manufacture of plain and adopting that of finished textiles, and by the devaluation of the yen in foreign exchange as the result of the reimposition of the gold embargo. In spite of high tariff barriers and restrictive measures adopted by various countries against Japanese cotton textiles, these goods are hurdling high over the walls into foreign markets. Of the 1934 export cloth totalling 2,577,237,000 yards, worth ¥492,000,000, the largest of 451,640,000 yards went to British India and Ceylon, the second largest of 440,870,000 yards to the East Indies and the third largest of 233,686,000 yards to

Egypt. Manchoukuo was fourth with 170,430,000 yards. China which used to be one of the great consuming countries took only 59,443,000 yards for the same year. Optimists in the cotton trade have been credited with saying that the anti-Japanese boycotts in China for the last several years have had their brighter side. They have forced the Japanese spinners and piecegoods exporters to extend their markets to other countries. This is true. In 1928 China took 44.2 per cent of all Japan's exports of cotton cloth. Now, it takes about 2.5 per cent of all. Exports of cloth to India have been placed under the control by the Indo-Japanese Trade Agreement. The total for 1934 was just about the same as that for 1933 but, since Japan shipped so much more cloth, the percentage of total exports was lower. Shipments to the British Empire as a whole rose appreciably but the share of the Empire in Japan's export cloth trade was cut from 40.3 per cent to 33.8 per cent. It will be noted that Egypt, which is unquestionably under British influence, is considered here part of the British market. The Chinese market has been contracting. There have been two reasons for this. One is the growing ability of the mills in China to supply the needs of the country and at cheaper prices than the Japanese. Most such mills are run by Japanese and British. The other reason is the boycott movement, which has never been put down completely, in spite of outcries for Sino-Japanese economic co-operation. The decline in the China market thus is actual, not merely an optical illusion caused by the independence of Manchoukuo. Until last year Japan always bought a good deal of cotton cloth from abroad. This was due largely to the fact that mills in this country



Part of Cable Manufacturing at the Factory of the  
Sumitomo Electric Wire Co., Ltd.



The Whole View of the Sakurajima Factory of the  
Sumitomo Metal Works, Ltd.





concentrated principally on weaves intended for the export market and did not make the finer grades of cloth. It was considered uneconomical to do so. With the geographical as well as volume expansion of exports, however, markets for the fine weaves began to open up and Japan commenced to make them. The export cotton yarn value for 1934 amounted to 190,000 piculs, worth ¥23,500,000. Their combined total was ¥516,000,000, corresponding to about 24 per cent of the total export value of the Japanese goods. If the export value of other kinds of piecegoods is added, the total will be enormous. What will become of the future of the Japanese cotton industry and its export trade is an interesting subject of study, because its future is believed to be beset with rivals such as staple fiber, otherwise known as artificial cotton and rayon yarn.

### Raw Silk Industry

Until the World War Japan paid its way internationally with raw silk. Other industries were infantile, only cotton spinning and tea planting being able to export appreciably. Silk and Japanese trade became practically synonymous. Today the situation is changed, due to a number of important factors. First, the nations staged a war in 1914-18, shutting off supplies of manufactured goods from many markets. Japan was forced to make its own and took the opportunity to sell to some of the Asiatic markets which previously had been supplied from the United States and Europe. Volume of such war-time exports was never very great but prices were exceedingly high and the figures are impressive even today. However, this forced industrialization came at a

happy time, for it followed almost immediately the success of experiments in the manufacture of rayon on a commercial scale. The second factor which has contributed to the submergence of silk as a dominant factor in Japanese foreign trade has been the change in women's fashions. Before the World War yards of silk cloth went into the making of a woman's dress. Today less than half as much as material is needed and, when used, is more apt to be cotton, linen or rayon than silk. Only in hosiery has silk more than held its own. However, the raw silk industry has a great asset inaccessible by the cotton spinning and rayon manufacturing industries. This is because Japan produces and exports it, while the export cotton textile industry depends on import raw cotton and the rayon manufacturing industry on import pulp. In 1929, raw silk accounted for 27 per cent of Japan's total exports. The year 1934 saw the proportion had fallen to 13 per cent, while cotton cloth, accounted for almost 23 per cent. Even if raw silk and silk fabric exports are added together, they account for only 17 per cent of 1934 exports. The following table shows Japanese production of the four leading textile materials for 1934:

	Amount (000 pounds)	Value (¥000)	Average price per pound (yen)
Silk yarn	74,460	317,200	4.26
Woolen yarn	62,689	126,490	2.49
Rayon yarn	149,795	146,798	.98
Cotton yarn	1,388,977	972,284	.70

While it's true that raw silk no longer dominates Japanese foreign trade, it retains an important place,

still ranking as the second most important export. The losses in silk have been made good, so far as the Empire's trade is concerned, with gains in other export lines, but the farmers have had no compensation. Silk was and is about the only crop which can make the typical Japanese garden type of farm profitable, for the money per acre is relatively high. Fertilizers for the mulberries, taxes for the Government and interest for the usurers leave the sericulturist little or no margin of profit. For years it was an axiom that, no matter what the business condition of the world or the country was, Japanese cocoon production would rise. There was an easy explanation for this. Government experimental stations had been working to good effect. They had been teaching farmer how to fertilize mulberries. They had been importing better breeds of worms. But their greatest contribution had been the system of placing silkworm eggcards in cold storage, so that the worms would not hatch until mulberry leaves to feed them were available. In this way, the hatching was delayed throughout the summer and from time to time the summer-autumn crop turned out to be larger than the first crop. Thus, the cocoon crop rose steadily until the financial panic which overtook the United States in 1929 and diminished the principal world market for raw silk. In 1929 the cocoon production was 102,093,000 kwan (one kwan being 8.27 pounds), a gain of 8.7 per cent over 1928. In spite of the great decline in prices, 1930, the first year to show a decrease, held almost even with 1929. The yield was 101,881,000 kwan. The following year showed a drop of 4.7 per cent to 97,072,000 kwan. In 1932 it fell to 89,550,000 kwan. The start

of the Roosevelt boom in the United States brought ill-timed encouragement to the Japanese raw silk industry and production rose to 101,163,000 kwan in 1933. Carry-over stocks were heavy when 1934 commenced and price dived. Cocoons felt the pressure and output was only 87,199,000 kwan, down 13,960,000 kwan from 1933, or a loss of 14 per cent. The 1934 crop was the smallest since 1926 and represented less than a third of the value of the 1926 crop. The price per kwan was the lowest in the history of the Japanese raw silk. Because of the acute silk depression, the Government in 1932 decided that silk production should be limited and decided to grant subsidies to farmers who would dig up their mulberries and plant rice instead. This worked to some extent but the change-over was not so great as had been anticipated. In 1934 the Government decided to go even further and adopted a plan for three years, each year to see a 30,000 chobu decrease in the acreage. After 1936 the acreage is expected to be about 550,000 chobu, a decline of 22 per cent from the total area at the end of 1930. The decline in the market for Japanese raw silk has been largely a decline in the American market. America regularly bought almost all Japan's silk in the old days and, though sales to other markets have been attempted, the totals taken have been disappointing. Every American girl, it appears, must have silk stockings. In other countries they sheathe the limbs of the rich alone. While Japan's exports to the United States dropped from 540,608 bales in 1929, the last year of boom, to 446,004 bales in 1934, a decline of 18 per cent, the proportion of Japanese silk used in America has risen steadily, going from 87.4 to

96.5 per cent in the same period. Japan last year accounted for 78 per cent of the world's production of raw silk. The total was 36,962,000 kilograms and Japan turned out 29,000,000 kilograms. Japan exports more than 80 per cent of its raw silk production. Despite the financial depression or perhaps because of it, rayon has been widening its market. The public has been using rayon instead of silk and rayon instead of other materials. Particularly has this been true in the United States. Perhaps less silk has been bought, but much more material looking like silk is in use than ever before. In 1930, the first year of the slump, American consumption of rayon amounted to 100,000,000 pounds. In 1931 it had risen to 144,000,000 pounds. By 1933 the total was 207,000,000 pounds, the peak, and in 1934 demand was 187,000,000 pounds. Raw silk fell below ¥500 for the first time in history in 1934. In December, 1933, American silk consumption fell to 26,900 bales and the base grade dived to ¥545.00 in the New Year market. Other discouraging factors followed. These included depression in the American silk industry, higher tariffs on silk goods in England and general strikes in the American textile industry. The base grade went to an all-time record low of ¥445 in September. The number of cocoon raising houses in Japan in 1899 was 25.2 per cent of the total number of farming houses, but in 1929 it gained to 39.8 per cent, or 2,165,000. In 1933 the number was 2,092,000 houses, or 37.2 per cent. The average cocoon production a year is about 50 kwan per house. This is a small-scale household industry. Sericultural seasons are two, the spring and summer-autumn sericulture. The summer-autumn seri-

culture include the late autumn sericulture. The total cocoon production for 1929 amounted to 102,093,000 kwan, worth ¥655,000,000. The quantity and value had gone off later, due to a series of sericultural depression. While the 1930 quantity gained over the year before, but the value decreased, due to a drop of price, to ¥304,000,000. In 1933 the cocoon price revived somewhat, but in 1934 the quantity went off to 87,000,000 kwan and the value to ¥204,000,000. The 1934 value dropped to 32 per cent of the 1929 value. Out of the total silk production, 85 per cent is exported, and out of the total exports 87 per cent is shipped to the United States. The Japanese raw silk market is, therefore, solely affected by the economic condition of that country. The total number of silk reeling factories in Japan in 1932 was about 3,150, each employing more than five operatives, of which those employing less than 100 were over 70 per cent. The Government does not permit a new factory equipped with less than 150 basins to be established at present with the object to avoid competition. The silk textile industry has developed along with the growth of the raw silk industry. In 1914 the annual production was valued at ¥140,000,000, but in 1919 it rose as high as ¥470,000,000, due to exceedingly high prices of textiles. The 1934 production was ¥340,000,000, the largest second to the cotton textile production. Viewed from the fact that Japan is the world's largest silk producing country, the silk textile industry rather lags behind. This because the majority of raw silk are exported and the domestic textile industry is ignored. The export values of raw silk and silk textiles were ¥287,000,000 and ¥77,500,000 respectively

for 1934. Both combined occupied about 18 per cent of the country's export value. The future large development of export raw silk trade is doubted, because of the assertion of rayon in the world's market.

### Wool Industry

Japan today stands second to Great Britain as a consumer of raw wool and is fifth in the list of exporting nations. While the woolen industry of Great Britain has been rising 30 per cent in output and every other important nation has been recording a sharp decline, the Japanese wool spinning industry has more than doubled since 1928. While wool regained prosperity because of the slip in the yen, the industry is not without its troubles. High profits in 1932 resulted in the usual rush of outsiders to get a share of the business. New mills were put up and existing mills expanded their facilities. In view of the fact that the farm population has practically no purchasing power under present conditions, the market seems to be over-supplied. This would not be serious if the woolen industry were as well controlled as cotton, rayon or hemp, but a large proportion of Japan's woolen yarn is made by companies outside the cartel and attempts to curtail production merely hand profits to the outsiders. It will be noticed, however, that Japan's 1934 takings of raw wool were far below those of 1933, totaling 181,107,520 pounds against 242,620,000. Value went up, partly due to the lower yen and partly to the stronger Australian quotations. The future of the Japanese wool spinning industry apparently rests with Japan itself. It is not like rayon, in which raw materials account for a relatively small fraction of the production cost. In



woolen yarn and cloth materials are the important factors. Japan has no great wool-buying customers near at hand. The distant customers are hard to sell, for freights wipe out the advantage of cheap labor, even though that advantage may be magnified by the depreciated yen. Accordingly, while Japan will probably continue to sell a fair quantity of woolen yarn and woolen piecegoods, the expansion of the industry rests almost entirely with the domestic market. And until the farmers of this country, who constitute about half the population, have their purchasing power revived, Japan will probably buy relatively little more than at present. The 1934 experience when wool purchases, yarn spinning and cloth weaving all went off in the middle of the great "export boom," showed which way the wind is blowing. While purchases of wool and manufactured output have been going off for the past year or so, Japan has been adding steadily to its productive equipment. The figures on spindles and looms which accompany this article unfortunately extend only to the end of 1933, but the gains were continued into 1934. The only really encouraging factor about the Japanese woolen industry in 1934 was the gain in exports. These went steadily upward. Woolen cloth and serge exports were 20 times what they were in 1931, woolen yarn 8.9 times and muslin six times. Value rose to ¥33,467,000, compared to ¥1,836,000 in 1931. Principal markets were Manchoukuo, Kwantung Leased Territory, China and British India. England and Germany are also buying small quantities. The figures on Japanese purchases of raw wool reveal a strong tendency to buy in markets others than the Australian. In 1933 Australia supplied

94.8 per cent of Japan's wool. In 1934 this percentage had fallen to 84.8 per cent. There has been a good reason for this. Japan is trying to expand sales to the South American countries. These all have exceedingly difficult exchange control regulations and the only way Japan can expand sales to them is to buy more from them. They have few products which Japan wants in any quantity but raw wool is one of them. One might almost say that a drive is under way to encourage purchases of raw wool from Uruguay, Argentina and other non-Australian producers, including South Africa. Freights are against this kind of a switch, but export-import guilds are charging export fees to subsidize wool purchases from the South American suppliers. Australia still has a tremendous favorable trade balance in its trade with Japan and the Japanese scheme is to reduce it to make possible greater exports elsewhere. The establishment of a Government woolen textile mill at Senju, Tokyo, in 1876, was the origin of this industry in Japan. Many private companies were organized after the Sino-Japanese and Russo-Japanese Wars, but, due to the pressure of foreign competition only a few company were able to survive. By the World War the industry was given a further good opportunity for trial at development, an opportunity that was not neglected, and which turned out more successful than previous attempts, as a very big demand for woolen goods was created. The production of woolen goods in Japan is carried by two classes of manufacturers. The first are the large-scale producers, who carry through the whole processes of spinning the yarns weaving them on power looms and dyeing them. The other class is that of the small producers who buy yarns from others and weave by

hand looms. There are about 30 companies which belong to the former class, while there are numerous weavers who belong to the latter class and who produce considerable quantities of serge, muslin, etc. Japan does not produce any wool itself, but imports mostly from Australia. Formerly, in addition to greasy wools, tops were imported in large quantities, but, as the facilities for preparing tops from greasy wools have been greatly improved, the importation of tops has recently been reduced. The Manchurian Incident and the continued stationing of the army in Manchoukuo have created a great demand for woollen goods and the industry is now showing a great activity. The technique of manufacturing has greatly advanced of late, and Japan can now produce woollen textile with a few exceptions, equal in quality to those imported from abroad. The reimposition of the gold embargo and the yen exchange rate have reversed the pressure of foreign competition. Wool raising in Japan remains in its infancy, despite Government encouragement on home-grown wool. Muslin production has been falling steadily since 1927, for woollen muslin is used mainly for the manufacture of kimono, and Japan is turning more and more to European-style clothing. The production of woollen textiles in Japan was about ¥40,000,000 a year, but in 1920 it went up to ¥160,000,000 and in 1927 it gained as high as ¥238,000,000. Since then the value had been declining, but in 1933 it was ¥188,000,000. Of the production, serge was the largest, with muslin, cloth, flannel and others coming in the order. There are over 20 woollen manufacturing companies in Japan. Some of them make yarn and others textiles. Aichi Prefecture with Nagoya City at

the center is the largest weaving center of woolen textiles in Japan. Import textiles have decreased considerably in recent years with the rapid growth of this industry. In 1924 import textiles were worth ¥63,000,000, but since the replacement of the gold embargo the value has gone down and the 1934 value was but ¥5,300,000. On the other hand, the export textiles which totaled only about ¥1,500,000 in 1931 increased to ¥4,700,000 in 1933 and further to more than ¥30,000,000 in 1934. They are exported principally to Manchoukuo, India and China. The exportation of woolen yarn has also increased and the 1934 volume was ¥4,400,000.

### Rayon Industry

Even in this speed age, there appears to be no industry in Japan that has made such rapid strides in recent times as that of rayon. Not so many years ago, large department stores in Tokyo were exhibiting rayon stuff as a novelty, and people were wondering whether this new stuff, made from pulp, could be of practical value. And yet, today, rayon articles in their wonderful variety, form one of the most important lines in these stores. In 1926, the total production of rayon yarn in Japan amounted to only 5,000,000 pounds, while in 1931 it increased to more than 46,000,000 pounds and in 1932 to 64,000,000 pounds. The 1934 output totaled 137,000,000 pounds. In 1933 Japan became the second largest producer of rayon in the world, but a poor second to the United States. In 1934 the American lead was reduced and, if expansion plans come to fruition, Japan will become the world's most important

producer of the fiber for 1934. Gains of the past several years have been spectacular. In 1933 Japan produced 97,598,000 pounds of rayon. The 1934 output was 137,790,000 pounds for companies which are members of the Association of Rayon Manufacturers and 21,000,000 pounds for outsiders, making 158,790,000 pounds or a gain of 54 per cent. At the same time the United States was turning out 187,670,000 pounds. Rayon manufacturing in Europe was hardly on a commercial basis before the World War. Plants in existence before 1917 were largely experimental. Japan's first plant was started in 1917. Since then the technical advances of the industry have been remarkable and Japan has purchased or borrowed all the advances of the Western lands. Japan's gains may be attributed to two factors. First has been the cheapness of labor, an advantage magnified several times by the 1931 departure from the gold standard. Second has been the fact that Japan has been nearer to the markets of the Orient than any other major producer. The return to the gold embargo has been big factor. In 1931 Japan turned out only 47,000,000 pounds of rayon and ranked below the United States, Italy, Germany and Great Britain. Rayon was at first regarded with distrust, but it has since proved thoroughly serviceable. The manufacturers have been making vigorous efforts to improve the quality of the yarn. Some makers are turning out multifilament yarns, which consist of a larger number of finer filaments compared with ordinary yarn of the same denier. Multifilament yarns are more supple than ordinary ones and when woven the cloth is practically free from the creases which are unavoidable in textiles made of

ordinary yarn. A further innovation is that dull luster yarns are being made in some factories. The public has been educated in how to handle goods made of rayon, how to wash them, and so forth, and the ways in which rayon is being used have considerably increased during recent years. It is hardly necessary to extol the superior quality of natural silk, its beauty, its soft feel, and durability, but sometimes, it is more expensive than one can afford, and a trade in mixed rayon and silk fabrics, which are obtainable at reasonably low prices, has arisen. Such textiles are finding more and more favor with the public, and both silk and rayon are being given more opportunities of use. This weaving in silk and rayon mixture has made unique development in Japan, and has attracted world-wide interest. The mixed fabrics enable dyers to produce a pleasing effect by cross-dyeing, that is, by applying at separate times the dye that affects silk only and the one that affects rayon only. Such stuffs are increasingly popular for making into kimono. Likewise, cotton and rayon mixtures are being woven with excellent results. The same principle has already been applied to several other fibers, such as hemp and wool, with success. To make cotton yarn, Japan must import cotton. But much of the pulp used for rayon is made in this country, with the result that the production cost of rayon yarn is now lower than that of cotton yarn in some plants. The production cost of 120 denier medium quality ranges between ¥50 and ¥60 per 100 pounds, generally near the lower figure, which is below the cost of the corresponding quality of cotton yarn, 44 counts. All the companies have been expecting that, sooner or later, some such check as the present

one would come over the expansion of rayon, bringing with it lowered prices and diminished profits. For this reason they all have been working to reduce production costs, to the end that they might be able to compete in the time of temporary crisis. There is no expectation, however, that the check will be other than temporary, for Japanese rayon producers can undersell the entire world in rayon and even cotton of corresponding grades. Since rayon has advantages of appearance over cotton it is obvious that it must continue to expand its market and will do so as soon as the present kinks are straightened out. The leading rayon companies made more money in 1924 than in any preceding twelve-month, their total 1934 earnings totaling ¥54,693,000, compared with ¥41,846,000 in 1933. The rate of profit fell slightly because of great increases in paid capitalization. During the first half of the year the six leading companies (Teikoku, Asahi, Toyo, Kurashiki, Nippon and Showa) earned ¥30,375,000 or 56.5 per cent on the total capitalization. In the second half their earnings (only five companies are considered, since Toyo absorbed Showa) were ¥24,318,000. The oldest rayon making company in Japan was the Azuma Industry Company, which was predecessor to the Teikoku Rayon Company. It was founded in 1913. The 1934 production of rayon textile in Japan was ¥200,000,000, more than a double that for 1931. The 1934 export amount of rayon textiles amounted to about ¥113,000,000 and that of rayon yarn to about ¥22,000,000, with a total of ¥135,000,000. These exports were taken mostly to British India, the Dutch East Indies, Australia, Egypt, and the Kwantung Leased Territory.

### Dyeing Industry

The dyeing industry plays an important role in the textile industry. It has so far contributed a great deal to the development of the textile industry. That Japanese textiles are demanded heavily abroad owes a great deal to the dyeing industry. Dyeing has been practised in Japan for centuries during which it has marked a great progress. Japan has its own tradition in dyeing. Technical fineness of dyers characteristic of Japanese has rendered the dyeing to develop. As factory industry, however, the dyeing has developed since the Meiji Restoration. Artificial dyestuffs and various chemicals were imported from Europe and America. Necessary machines also were imported. It was a subsidiary business to the textile industry, but after the middle of the Meiji Era factories specialized in dyeing were established, and they have grown into a modern industry since the Sino-Japanese and Russo-Japanese Wars. The World War had given it a great stimulus. The number of factories had increased year after year. In 1914 before the outbreak of the World War these factories doing dyeing, finishing, bleaching and refining numbered 455 but in 1919 it increased to 1,477. With the suspension of import dyestuffs during the World War, Japanese dyers had to make improvement on the technique and, consequently, the dyeing had realized a great progress. Until before the World War aniline black-dyed cotton satin could not be made in Japan, but during the War, when imports were suspended, Japan invented technical method and finally exported it. Reaction came over the dyeing industry after the War, but it has successfully tided over the severe ordeal. The wages for dyeing is



an important index for the development of this industry. For instance, those for 1920 amounted to ¥61,000,000 in 1920, but in 1929 the total reached ¥107,000,000. In 1930 and 1931 the figure fell off, because of the economic depression, to about ¥80,000,000. It has started upward once more since the reimposition of the gold embargo and in 1932 the figure totaled ¥110,000,000, an all-time record high. The industry as a whole is extensive, but individually it is a comparatively small-scaled. In 1932 there were 2,513 dyeing factories each employing more than five workmen. The total number of workers was 56,000, which means an average number of only 23 per factory.

#### **f. Ceramic Industry of Japan**

The ceramic industry of Japan is fairly well developed but its position in the realm of industry as a whole is comparatively less significant than others. The total production of ceramics in this country in factories employing more than five workmen, for 1932 amounted to ¥162,000,000, which was only 2.7 per cent of the whole industrial production. The industry, however, bids fair for gradual development. The ceramic industry in Japan consists of cement manufacturing, glass and glass product manufacturing and porcelain manufacturing.

#### **Cement Industry**

The cement manufacturing industry began in 1872. It has gradually grown into a substantial industry along with the development of other lines of industry. Until 1890 Japan imported a fairly large amount of cement, but in 1910 this country succeeded in ousting foreign

products from the Japanese market. Japan is now a cement exporting country. In the amount of production Japan is one of the foremost countries of the world. In 1914 prior to the World War the annual cement production here was about 770,000 metric tons, but it grew greatly during the war and in 1919 attained about 1,000,000 metric tons. A large-scale expansion of factories was carried out after the Kwanto earthquake-fire of 1923 with the progress of reconstruction work. The output has increased rapidly since and in 1929 the production had risen to 4,000,000 metric tons. It dropped slightly later, but it has turned upward again. The 1934 output was 4,800,000 metric tons, in spite of the fact that the industry was under a high production curtailment ratio of more than 50 per cent. The monthly productive capacity during the second six months of 1934 was more than 800,000 tons. The cement manufacturing industry in Japan is able to get along with comparatively small capital, since limestone is found in abundant quantity in various localities. The increase of production is caused by technical improvement, which is not inferior to that of any other country. In the part, the dry method of manufacture was adopted in all cases, but in 1929 the Asano Portland Cement Company invented the wet method, by which it succeeded in manufacturing high grade cement. More than 95 per cent of the total production in Japan is Portland cement, more than 50 per cent of which is used for public engineering. Most of the cement is consumed in Japan, but some of it is now exported. In 1930 the exports totaled 590,000 metric tons. The amount dropped somewhat later, but in 1934 it was about 450,000

metric tons, worth ¥7,900,000. Manchoukuo imports the largest amount. Exports also go to Hongkong and the Straits Settlements. The future export trade is not very promising. The domestic consumption also is not expected to increase. The future of this industry is not bright.

### Porcelain Manufacture

The chinaware produced in ancient times in Japan was unglazed. The opening of intercourse with Chosen, however, was followed by the introduction of the ceramic art prevailing in that country, though no conspicuous progress was noted in our porcelain manufacture all through the Nara Period and early in the Heian Period. The art of making porcelain-ware was also introduced from China in the sixteenth century, but, as no clay suitable for its manufacture was found in the country, it remained undeveloped for about a century thereafter. The immigration of Korean potters resulted in a marked development of the ceramic industry in Japan, which made further notable progress in the Tokugawa period, being almost completely transformed. The great change in domestic conditions following the Restoration of Meiji caused a decline in the manufacture of china and earthenware of high value, especially those for the tea ceremony, but tableware produced at Arita, Kutani and Seto were not only in great demand at home but were shipped in increasing quantities abroad. It was at Arita that the European glazing method was first adopted and Arita products were received with much favor by foreigners at one time. Notwithstanding that European machinery was imported in increasing quantity

after the Restoration, Japanese ceramists did not use it in the manufacture of chinaware. The ceramic industry has been developed in Japan to the present flourishing state because it has a history extending for more than twenty centuries and the Japanese people are especially suited to handiwork. Porcelain has now become one of the most important exports of this country. Because of handiwork, the industry as a whole is not large scaled, except a few large companies undertaking it on an elaborate basis. Throughout Japan there were about 6,500 large and small factories engaged in this industry in 1932 and the number of employes was 44,000. Factories each employing more than five men numbered more than 1,000. Production of porcelain in 1914 was only ¥15,000,000, but in 1919 following the World War it gained to ¥64,000,000. A record was set in 1925, when the production reached ¥78,000,000, but after that it declined. In recent years, however, the productive value has gone upward again and reached ¥65,000,000 in 1932. Porcelain kitchen utensils are the chief product, nearly half the total production; furniture and decorative articles about 18 per cent and insulators, toys and other articles less. Exports of porcelain have increased considerably in recent years. In 1887 an export value of ¥1,300,000 was recorded and since then the amount has kept rising. The amount for 1914 totaled ¥6,000,000 and that for 1919 totaled ¥22,000,000. The 1931 figure was ¥19,000,000 and an all-time record high of ¥42,000,000 was registered for 1934. Thus, porcelain has elevated its position in Japan's export trade, coming next to cotton textiles, raw silk, rayon textiles, silk textiles and canned provisions, holding the

sixth most important rank. The United States is the largest customer of Japanese porcelain and next comes British India, the Dutch East Indies, Australia, the Kwantung Leased Territory and Canada. The products are welcomed everywhere, because of cheap price incidental to a low production cost. Japan does not import any porcelain.

### Glass Manufacture

The glass making industry in Japan has prospered since 1876. It realized a considerable development during the World War. The production before the War was only about ¥7,800,000, but it rose to ¥64,000,000 in 1919. The value dropped considerably later, affected by general economic depression, but has begun to turn upward. In 1932, the amount of production at factories employing more than five workers totaled ¥37,000,000. Sheet glass led, with ¥14,000,000, or 37 per cent, and glass for bottles ¥11,000,000, or 31 per cent. Production of window glass was important and the 1932 figure for Japan was the largest in the world, outstripping the United States and Belgium. Imports declined along with the increase of production. Exports of glass are heavy in recent years. Before the World War the annual export value was only about ¥2,000,000, but in 1920 it was ¥19,000,000. The heavy export trade was shortlived, as reaction set in. However, exports, in the last several years have been phenomenal. The reimposition of the gold embargo in 1931 gave a great stimulus to the trade. While the 1931 export figure was only ¥6,500,000, the value for 1932 advanced to ¥9,300,000 and that for 1933 further to ¥15,000,000.

The 1934 figure was ¥19,500,000, which was three times the 1931 figure. Bottles are the chief export, 40 per cent of the total. British India is the largest customer, with ¥5,500,000, followed by the Dutch East Indies with ¥1,900,000, the United States with ¥1,800,000 and China ¥1,200,000. Imports of glass were ¥7,800,000 in 1929, but in the last two or three years the annual value has been about ¥3,800,000. Imports are exclusively sheet glass, mostly from Belgium and Czechoslovakia.

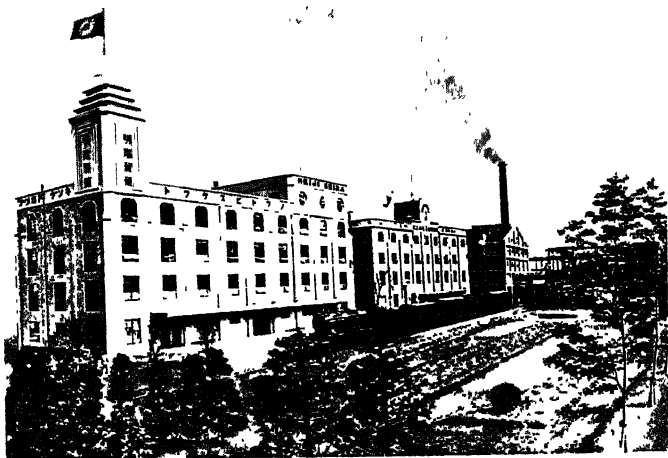
#### g. Foodstuff Industry

The foodstuff industry occupies an important position among Japanese industries. The production at factories each employing more than five workers in Japan Proper for 1932 amounted to ¥893,000,000, or 14.9 per cent of the country's entire industrial production. If the figure for sugar, which is mostly produced in Formosa, is added the percentage is larger. The sugar manufacturing, wheat flour milling, beer brewing and sake brewing industries are the main foodstuff industries, but the first-mentioned three lines are carried on a large industrial scale. Sake brewing as a whole occupies an important position, considering the fact that its 1932 year production at factories each employing more than five workers was ¥287,000,000, but it is conducted on a small scale in most cases. Here, the other three foodstuff industries will be discussed.

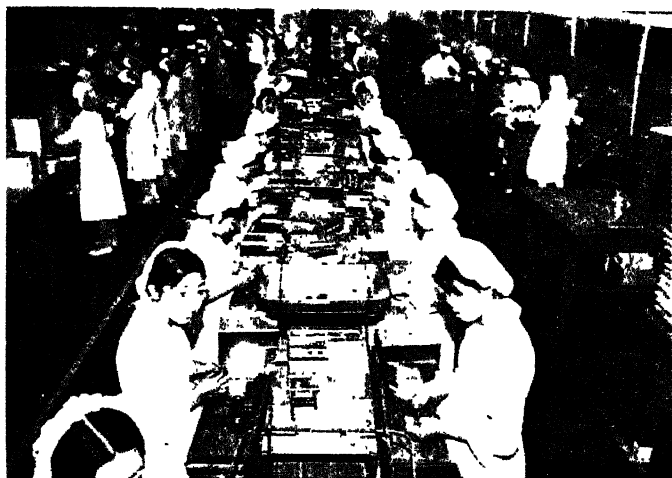
#### Sugar Refining Industry

After the Meiji Restoration, the unrestricted importation of foreign sugar caused the Japanese sugar industry to shrink to the verge of extinction and sugar manufacture

was conducted on a very limited scale in the Loochoos, Kyushu, Shikoku and other districts. Later, the Meiji Government commenced the experimental cultivation of sugar-beets in different places, but it failed miserably. Some interests also erected factories with the object of making sugar from beets but failed. When Formosa (Taiwan) was annexed to Japan, as the result of the war with China, the Government considered it imperative to develop the sugar industry in the Island which had long been known as one of the principal sugar producing regions in the world, and did much for the encouragement of the cultivation of sugar cane and sugar manufacturing there, with the result that the sugar industry in the Island has been gradually developed to its present prosperity, thereby partially realizing the hope of self-supply of sugar for Japan. Being situated in the sub-tropical zone, Formosa is fully qualified for the cultivation of sugar cane. Thanks to encouragement measures by the Formosan Government-General, large modern sugar factories and refineries were erected there. The sugar production about 1910 amounted to 4,500,000 piculs, which was nearly enough to meet the domestic demand. It declined later, but has gone up again. The 1932 production of Formosan sugar alone amounted to 16,000,000 piculs and, if that in Japan Proper and the mandated South Sea Islands is added, the total production was 19,300,000 piculs, an all-time high record for Japan. This amount far surpassed the highest domestic consumption of 15,000,000 piculs. The surplus is exported. Due to restriction on sugar plantation and production for 1933 and 1934, the amount went off, but the 1935 output is estimated tototal about 18,800,000 piculs. Since 1930 Japan has



The Kawasaki Factory of the Meiji Confectionery Co., Ltd.



Part of Chocolate Factory of Morinaga  
Confectionery Co.





been entirely self-sufficient in sugar, but more noteworthy is that Japan has also become a sugar exporting country. As for cane sugar, Japan has become the fourth largest producing country of the world. Why has Japan become so prominent as a sugar producing country? It is because of improvement of the quality of cane and the technical progress of sugar manufacturing. The Formosan Government-General has concentrated its energy on the improvement of quality. At present there are ten leading sugar manufacturing companies with an aggregate capitalization of ¥240,000,000 in Formosa. Since the German South Sea Islands came under Japan's mandatory rule in 1920, cane sugar plantations have been established there. Sugar beets are cultivated in the Hokkaido, but the production is small, only about 400,000 piculs. The annual production in the South Sea Islands is about 700,000 piculs. The sugar refining industry has been systematized since 1897. This is now additionally practised by crude sugar manufacturing companies. Such sugar mills number about 20 with a total refining capacity of 5,600 tons. Japan's annual sugar consumption is about 15,000,000 piculs, but the production is larger than that and this naturally causes sugar companies to turn to the export of surplus sugar. Export sugar totals about 2,000,000 or 3,000,000 piculs a year and the majority of it is shipped to China and Manchoukuo. Import sugar is declining yearly. Java crude sugar amounting to about 2,000,000 piculs is imported each year. Still, however, the Japanese sugar market is very much affected by sugar business conditions in Java. If therefore, the Netherlands goes off the gold standard, the possible drop of the guilder will cause Java sugar to find its way to

Japan in a greater amount and this in turn will disturb the Japanese sugar business. The Dutch East Indies has asked Japan to buy more Java sugar, but this country is hesitating because of its own surplus production.

### Wheat Flour Milling

It was not until after the Russo-Japanese War, 1904-5, that the wheat flour industry made any progress in Japan. Prior to the war there was a fairly large consumption, but manufacturing was only in a crude stage, most of the production being with the power of water-wheels. The quality was poor and not uniform and, being packed in straw bags, the product was not at all satisfactory. It was only in the year 1895 that wheat flour was first produced on a modern basis by machinery. In that year, the Nippon Seifun Kaisha, Ltd. began to operate mills. The demand for flour increased, but as production could not keep pace with it, imports naturally increased. Imported and water mill produced domestic flour together satisfied practically the whole of home consumption, while domestic flour coming chiefly from the United States was of a far superior quality to the home product. Many flour mills were established on a modern basis during the great boom which followed the Russo-Japanese War, and production capacity was greatly expanded, but a contraction was brought about by the closing down of many of the newly established mills when the reaction later set in. During the World War the industry experienced unprecedented prosperity, and, with this development on modern lines, domestic producers who make flour in the old-fashioned way have lost nearly all their customers and, further, imported flour has been

practically shut out of the country. Flour production by machinery in 1918 amounted to 17,000,000 sacks, which was 85 per cent of the total domestic production. The present annual production is about 48,000,000 sacks. Japan today is not inferior to any other country in the technical improvement of flour milling. The American method of milling has been replaced by one peculiar to Japan in recent years. The present flour consumption in Japan is about 34,000,000 sacks a year. Surplus flour is exported. Since 1926 flour exports have been steadily increasing and in 1929 amounted to about 8,000,000 sacks. The amount went off for some time, but with the reimposition of the gold embargo and the founding of Manchoukuo it has tended it to increase once more. The 1933 export figure was 14,000,000 sacks with the total value ¥35,000,000. The year 1934 witnessed a decline to 12,000,000 sacks worth ¥28,000,000. Manchoukuo is the largest consumer and China, the Dutch East Indies and the Kwantung Leased Territory also consume it heavily. Imported flour in 1934 totaled only 45,000 sacks. Japan has become self-sufficient as to wheat, thanks to the tariff increase in 1932 and to the scheme of the Ministry of Agriculture and Forestry to increase home production. Japan's domestic consumption is about 9,000,000 koku or 46,000,000 bushels a year. Imports for the past couple of years have been running more than 8,000,000 koku, but most of this wheat is re-exported in the form of flour. In 1932, when tariffs in general were raised, the rate on wheat was boosted from ¥1.50 to ¥2.50 per 100 kin. (A picul, or 100 kin, is equal to 133 pounds). This was part of the Government scheme to make Japan self-sufficient in wheat.

The authorities estimated that Japan needed 5,000,000 koku of wheat for the flour industry and 4,000,000 koku for brewing and other purposes. In addition to raising the tariff, they encouraged rice farmers to convert their lands to wheat production, figuring on a five-year drive, and their efforts, were successful. Before the domestic tariff on wheat was raised, prices here fluctuated according to conditions in foreign markets and it was not always convenient to hedge purchases made in this country. In fact, for many years the business of flour milling was handled as if it were a speculation. Now this uncertainty has been eliminated from the business. Domestic wheat, most of the time, is well within the tariff wall and is not affected by foreign influences. Again, those in charge of the three biggest flour companies, Nisshin, Nippon and Nitto, are content to make their normal profits, without speculative adventures. As wheat prices rose, Japanese wheat began to recapture the market and in the month of December, 1934, alone, the Nisshin Flour Company shipped 1,500,000 sacks to Dairen. Many believe that 1935 exports to Manchoukuo will top, 14,000,000 sacks, setting a new record. One reason for this belief is the fact that the 1934 fall wheat crop in Manchoukuo was poor. The demand for flour is there and must be filled, so imports from Japan will fill it. The new tariff of 40 Japanese sen per sack is in effect. In spite of the plan to make Japan self-sufficient in wheat, imports were little affected. The reason, of course, is the system of tariff rebates for imported wheat which is re-exported as flour. As more and more rice paddies are turned over to wheat production, however, more and more Japanese wheat will have to be exported as flour and,

without strong gains in the export market, imports will probably fall.

### Beer Brewing

Beer was brewed in Japan about 80 years ago. The soil of the Hokkaido was found to be particularly good for cultivation of barley early in the Meiji Era and, as a result, a brewery was established in Sapporo in 1876 by the late Marquis Kuroda, and soon others were built in Meguro, Tokyo, in Suita, Osaka, and in Hodogaya, Yokohama. Now, beer brewing has become one of the principal industries of Japan. The production for 1933 and 1934 amounted to about 1,000,000 koku each year with a total value of about ¥70,000,000. Beer brewing differs from the brewing of Japanese sake in that it does not require much personal skill. It can be brewed on a large scale in a mechanical way, and as the brewing is done here in the German style, it requires extensive mechanical equipment and large capital. The Japanese taste for beer originated in the taste for sake. People who used to drink the Japanese liquor shifted their taste to beer. Nowadays, beer has become so popular that a great number of people drink it during the summer time. In recent years the mode of living of the Japanese has been westernized to a great extent, and the westernization of food has increased the taste of the people for beer. Moreover, with the advance of knowledge of hygiene, the people seem to give preference to beer, which contains a smaller percentage of alcohol than sake. In the light of these facts, the domestic consumption of beer is destined to increase. Exports of beer in the past have not been very encouraging. The

sudden increase of exports in 1918 was due to Britain and Germany having to neglect their Oriental markets, but with the return of peace they again turned their attention to the Orient, and Japan's exports fell off correspondingly. One reason of the slowness in development of exports may be due to the fact that in China the taste of the people as a whole for beer has not yet developed. Ever since the industry was started, imported beer has been practically driven out by domestic beer. Since 1912, imports have become so small that the figures have been cut out of the trade returns issued by the Government. The principal raw commodity for brewing beer is barley. This, until recently, was imported, but now it is being grown in various parts of the country on the basis of brewers contracts with village and town agricultural associations. In this manner about 300,000 koku, which is about the quantity required by the brewers, is being produced annually, and as the most of the breweries have their own equipment for converting the barley into malt the necessity of importing either of these materials is obviated. However, the quantity of barley now raised yearly may prove insufficient if the demand for beer increases to any great extent and supplies will then have to be obtained from abroad. Another important raw material is hops. Though several attempts have been made at different times to grow them in this country, the yield has always been very small, and reliance has to be placed on foreign supplies. The development of the beer industry in Japan has been phenomenal. The production in the country was only 238,000 koku for 1914, but it went up to 656,000 koku for 1921. The post-war reaction did not cause any

decrease at all. Production advanced to 915,000 koku in 1924. Later, however, output declined to 700,000 koku or so in 1931 and 1932, but since the replacement of the gold embargo it has gone up once more. The production finally went above 1,000,000 koku in 1933, creating a record high. The 1934 production went off somewhat to 970,000 koku. Thus, beer brewing has been perfectly industrialized. No breweries on a small scale are in existence now. By 1912 many small companies had been eliminated and at present there are only four large-scale companies, the Dai Nippon Brewery Company, Kirin Beer Company and two others. Moreover, the first-mentioned two concerns combined have 91 per cent of the country's total brewing capacity. Production and sales agreements have been in force since the summer of 1933 and complete control is now in effect in the beer industry of Japan. Imports of hops for 1934 amounted to ¥2,630,000. Exports of beer reached 110,000 koku in 1918, but such heavy exports were only temporary. Exports for 1931 were 37,000 koku, but in 1932 they gained to about 69,000 koku and in 1933 the figure increased to 132,000 koku, with a value of ¥7,680,000. Manchoukuo was the largest customer, buying more than a half the total, and next came China taking 12,000 koku and British India taking 11,000 koku. The Dutch East Indies placed restrictions on imports of Japanese beer to prevent the flooding of their market.



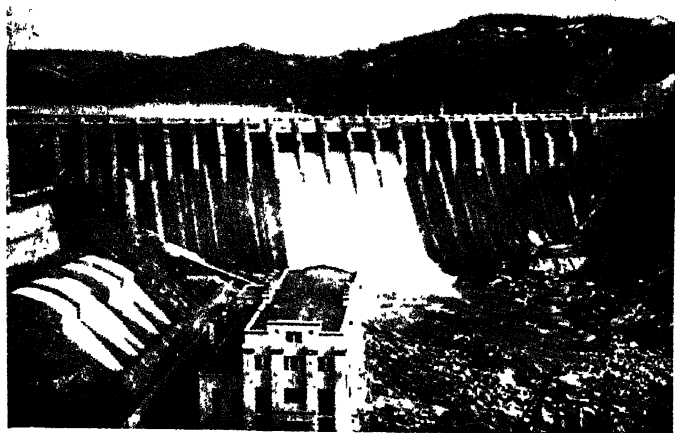
## PUBLIC UTILITY

### Electric Business

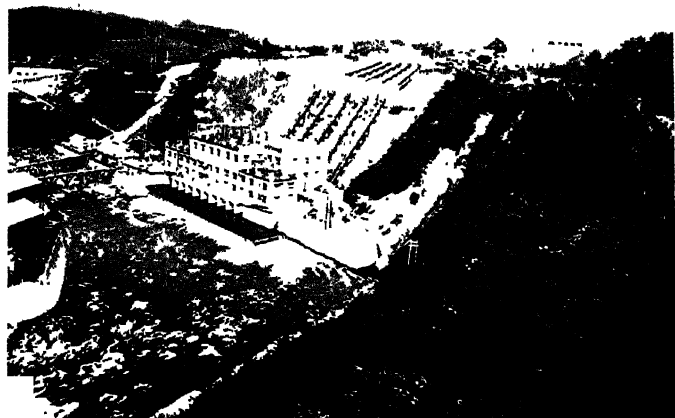
It was early in the Meiji Era when electricity was introduced into Japan. In 1885, a 15 k.w. direct current dynamo of Edison system was installed at the printing house attached to the Official Gazette Bureau of the Cabinet for lighting incandescent lamps. In 1886, a 25 k.w. dynamo of the same style was installed at the factory of the Osaka Cotton Spinning and Weaving Company for the same purpose. These were intended for the private supply of electric light. The supply of electric light to the public was started in 1886, when the Tokyo Electric Light Company supplied electric current to the Tokyo Bankers' Club for the lighting of 40 incandescent lamps on the occasion of its opening. At the time, electricity was generated by steam. The generation of hydro-electric power started in 1892, when Kyoto City constructed a power station, in which two sets of 20 horsepower water wheels of Pelton style for the towing of boats up the incline, while the work of excavating a canal connecting the Kamo River with Lake Biwa. The reason why the Japanese electric industry has made such great progress as is now witnessed during only four decades is due to the fact that the country is not favored with an abundant supply of coal but with rivers suited for the generation of water power. The course of the progress of the electric industry in Japan may be roughly divided into three periods. The first period extends from the birth of the

industry to 1903, or immediately before the outbreak of the Russo-Japanese War; the second period from the close of that war to the outbreak of the World War; and the third period from the beginning of the War to the present day. In the first period, electricity was exclusively used for lighting purposes and there was no demand for power. Steam power was used exclusively then and water power was unknown. As electric companies supplied electric current generated by steam, the field of their business operation was limited to cities and neither transmission nor distribution lines were laid. The starting of electric light supply in Tokyo in 1886 was followed by the promotion and launching of the same undertakings in various cities and, at the end of 1892, they numbered 11 with a combined capital of about ¥2,480,000, the houses to which electric light was supplied and lamps installed numbering 7,133 and 35,647 respectively, or five lamps per house. In 1903, eleven years later, 14,400 kilowatts were supplied for the lighting of electric lamps, while some 3,000 kilowatts were demanded for motive power. The number of electric companies increased to 91, capitalized at ¥13,000,000, paid up. The rise in the price of coal immediately after the Russo-Japanese War hampered the development of the electric industry, since steam was used exclusively. This had given rise to the growth of steam power enterprise. Early in its development, however, the generation and supply of water power on a large scale was impossible, due mainly to the scarcity of demand and technical handicaps. In the second period, the prosperity of industrial undertakings after the Russo-Japanese War gradually caused an increase in demand for power for

industrial purposes. Steam power generation became less active, due to the high coal price, and this resulted in the growth of the water power industry. In 1904 some 11,000 kilowatts of water power was generated as against some 29,000 kilowatts of steam generated power, but 116,000 kilowatts were recorded exceeding 100,600 kilowatts of the latter in 1911. Due, however, to a moderate demand for water power and to the cost of its generation, sites for water power plants were located in the vicinity of cities and the supply of power and current was limited to a conservative scale. The capital invested in electric undertakings rose from ¥15,000,000 in 1903 to ¥257,000,000 in 1914, a tenfold increase. The profits from the supply of power increased correspondingly. In 1908, they stood at 5.88 per cent to the total receipts, but grew to 24.85 per cent in 1914. The rapid development of the electric industry accelerated the rise of industries in general, and the use of electric motive power caused a great industrial upheaval in Japan. In the third period, the World War brought about a revolution in the electric industry, as was the case with other industrial lines. The phenomenal boom during and after the War called forth a brisk demand for industrial motive power and its price was no consideration to industrialists. On the other hand, the shortage of coal was pronounced, with the result that water power generation and its long distance transmission spread throughout the country. In due time, electric companies started the supply of power along with that of light. Further, in order to supply the volume of electricity generated at hydro-electric power plants, which usually suffers a decrease in winter when the water of rivers



A Gigantic Dam of the Ena Valley, Kiso River



An Electric Power Station (Inawashiro No. 2 Station) of the Tokyo Electric Light Co. Rated Capacity 29,160 K. W.



falls considerably, plants for the generation of electricity by steam on a large scale were erected in various supplying centers, as a consequence of which electric power generating capacity was augmented to a striking magnitude. The reactionary depression after the World War, however, prevented the demand for power from growing to the degree that had been expected. Consequently, there an over-supply arose and in disposing of it electric companies began to compete with one another without restraint, which caused power rates to decline, and their endeavors to open up new fields for business operations ended in campaigns for the electrification of railways, of rural districts and of homes. In reviewing the development of the Japanese electric industry in the past, two major changes are discernible. From the suppliers' viewpoint, the change was the decline of the generation of electricity by steam and the rise of hydro-electricity; while, from the consumers' viewpoint, it represented the transition from the stage of electric light supply to that of power supply. According to investigations made by the Ministry of Communications during the years 1918 to 1923 at 2,822 points along various rivers, the amount of hydro-electric power which can be generated in time of lowest water is 6,415,000 h.p., the maximum power at ordinary times 14,090,000 h.p. and the yearly average 11,933,000 h.p. Over one half of the above-mentioned points that can be profitably exploited have already been developed, and equipment for transmitting power for distances of 100 or 200 miles has been completed. But hydro-electric plants are installed for a normal flow of water; when it becomes low, steam power has to be resorted to and

for this reason, thermal electric power plants have also increased in number. In 1931, against 3,057,000 k.w. of hydro-electric power steam electric power accounted for 1,600,000 k.w. or 52 per cent. The United States possesses the most hydraulic power in the world, about 60,000,000 h.p. as against about 15,000,000 h.p. possessed by Japan. When this is compared with the area of the two countries, the relative position changes, the U.S.A. has only about 20 h.p. for every square mile, since her total area is about 3,030,000 square miles, while Japan has about 99 h.p. per square mile, her area being 147,000 square miles, Korea and Formosa excluded. This indicates that Japan is comparatively favored in regard to water power. The demand for power for lighting purposes seems to be approaching the saturation point, for the rate of increase has slackened of late. The increase of demand for motive power has been rapid. At the end of 1931, the number of motors obtaining power from commercial electric plants was 390,000 and the power supplied totaled 1,320,000 h.p. The number of motors powered from their own plants or from Government plants was 129,000, the amount of power drawn being 2,513,000 h.p. This made a total of 519,000 motors and 3,833,000 h.p. and when compared with figure of 1922, the number of motors had trebled, while the horsepower had doubled. Electric power supplied for purposes other than lighting or motive power, i.e., power supplied to the electro-chemical industry or for private purposes, amounted at the end of 1931 to 930,000 k.w., four times that supplied in 1922. For the last several years the electric power business had remained in depression, but now a combination of factors has

aided it to regain its feet. Demand is rising steadily, activated by the low yen and the general economic inflation. Total capacity of completed and uncompleted plants rose 294,076 k.w. in 1930, rose 463,581 k.w. in 1931, rose 274,625 k.w. in 1932 and then made a gain of 204,894 k.w. in 1933. Power demand depends largely on heavy industries, textiles, electrolytic plants and smelting and refining with electric furnaces. Japan is rich in hydraulic energy because of the mountainous nature of the country. One must remember, of course, that the mountains are not near the big centers of population in all cases, but recent technical improvements in high tension transmission have brought, almost all the power resources of the country within economical distance of such centers. After some years of practical standstill, Japan has resumed construction of water power electric plants and, according to the Government, work was in progress on 22 sites at the end of 1934 on the erection of plants with a combined capacity of 428,360 k.w. of which 420,000 k.w. will be hydro-electric. By the way, when the Koriyama Silk Textile and Spinning Company carried out water power transmission of 10,000 volts over a distance of 15 miles in 1900, it surprised technicians. Later in 1907 the Tokyo Electric Light Company undertook transmission of 66,000 volts over a distance of 49 miles from the Komabashi Power Station in Yamanashi Prefecture to Tokyo in 1907. In 1914 the Inawashiro Hydro-Electric Power Company (later merged into the Tokyo Electric Light Company) carried out transmission of 115,000 volts from Lake Inawashiro to Tokyo by means of a transmission line 150 miles long. That was then the third largest high voltage power transmission



project in the world. However, this is in striking contrast to the present transmission of 154,000 volts from Toyama or Fukushima Prefecture to Tokyo and Osaka. The water power generation in Japan was 15,284,000,000 kilowatt hours and steam power generation 3,793,000,000 kilowatt hours for 1934. The so-called Big Five electric power companies are the Tokyo Electric Light Company, the Daido Electric Power Company, the Toho Electric Power Company, the Nippon Electric Power Company and the Ujigawa Electricity Company. All of them issued debentures in the United States and Great Britain some years ago. Both the Daido and Nippon interests are specialized in wholesaling of electric power, and the remaining three in retailing of power and light. Tokyo Light is capitalized at ¥429,562,000 with its business spheres in Tokyo and the Kwanto district; Daido Power is capitalized at ¥176,000,000 with its business interests in Tokyo and Osaka; Toho Power is capitalized at ¥200,000,000 with its business activity over Nagoya and Kyushu; Nippon Power is capitalized at ¥100,000,000, enjoying business in Osaka, Nagoya, Tokyo and Hokuriku; and Ujigawa Electricity is capitalized at ¥92,500,000, doing business in Osaka and Kyoto.

#### Electric Industry Profits

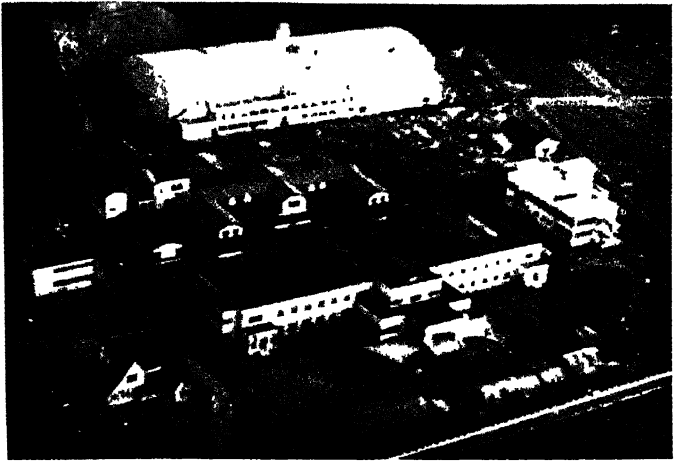
	Total capital	Profit	Profit rate
1917	¥ 578,947,000	¥ 62,090,000	11.7%
1928	2,868,717,000	282,880,000	9.9
1929	3,019,222,000	301,900,000	10
1930	3,180,810,000	255,800,000	8
1931	3,234,181,000	227,062,000	7
1932	3,326,834,000	195,997,000	6
1933	3,494,202,000	183,100,000	5.2

## JAPAN'S MOTION PICTURE BUSINESS

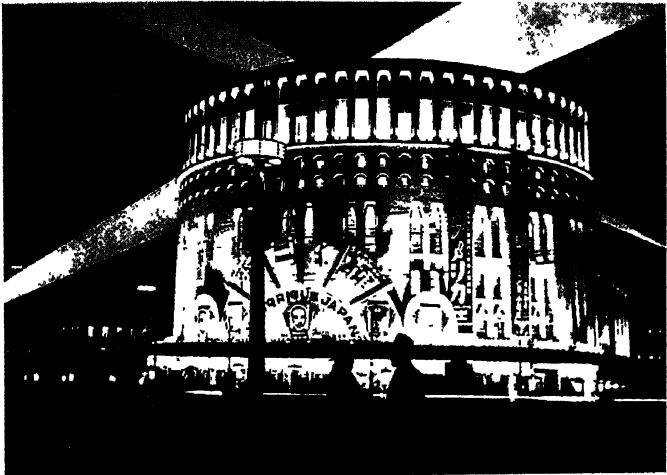
In line with the world tendency in motion picture circles, silent films are steadily being displaced by production of talkies in Japanese filmdom. Japanese motion pictures have no market abroad, unlike American films exported to all countries of the world. The raw films themselves are not manufactured in large volume and are mainly imported from the United States. Naturally the Japanese motion picture business is on a small scale. The production cost is becoming higher with the drop of the exchange rate. Motion pictures have much bearing upon the national culture, mental training, thought and many other psychological considerations. They are no more regarded a mere amusement, but have come to be inseparable from the daily life of the people. This is not only the case with Japan, but with other countries of the world.

It was in 1895 shortly after the invention of the "cinematoscope" by Thomas Edison in 1893 that the first moving picture was exhibited in Japan. The first picture was shown in Kobe. The first movie film Japan made was shown in 1897. The Denkikan at Asakusa, a famous amusement center of Tokyo, was the first to have exhibited motion pictures. The movie hall was opened in 1903. The Japan Cinematograph Company, Ltd., generally known as Nikkatsu, was founded in 1912 with a capitalization of ¥10,000,000 as the first company of the kind in this country. This company still exists as an influential

institution. Many other companies and private enterprises interested in this business have been established one after another, until the motion picture industry as a whole has realized satisfactory results, as are witnessed at present. The fact that must not be lost sight of in connection with this is that many foreign motion picture companies opened branches or agencies to import films of their own production into this country. They either sold their pictures to Japanese exhibitors or directly exhibited their films themselves. Those who opened agencies here were the United Artists, Paramount, Metro-Goldwyn-Mayer, First National, Pathe Exchange, Fox Film, RKO Productions, Warner Brothers, Columbia Pictures and others. They are still supplying good pictures to the Japanese market. In short, the Japanese motion picture business is getting along on a combination of native and foreign films. Films imported into Japan during 1934 amounted to ¥3,930,000, of which picture films were ¥590,000 and raw films were ¥3,340,000. The import total for 1912 was only ¥300,000. However, the 1934 figure was in contrast to about ¥5,000,000 for 1921. According to the Home Ministry, films censored during 1933 numbered 4,021, of which about 70 per cent were Japanese films and 30 per cent foreign. The number of Japanese films increased considerably, as it was about 50 per cent for 1926. However, more foreign pictures are talkies and the ratio is about 70 per cent to talkies of Japan make, but it must be pointed out that until several years ago there was no production of talkies at all in Japan. In 1933 Japanese producers made 521 films, for which negative films totaling about 70,000,000 feet and positive films totaling about 40,000,000 feet



The Ofuna Studio of the Shochiku Cinema Company



The Night View of the "Nippon Gekijo," the Representative  
Movie Hall in Japan at Marunouchi, Tokyo



were consumed. In that year 1,200 film actors and 700 actresses were employed. The total investment is estimated at about ¥3,000,000. The number of movie theaters in Japan in February, 1934, was 1,500 in contrast to 164 in 1912, 694 in 1921 and 1,097 in 1926. The number of spectators, at these theaters annually is about 180,000,000 and that of spectators at places of exhibition is about 60,000,000, with an aggregate of 240,000,000, it is revealed by a report of the Home Ministry. This means that the average person in Japan sees motion pictures about three times a year. Of the total number of movie houses nearly half display talkies, while those in provincial districts still exhibit silent pictures. Is the motion picture business in Japan profitable or worth while for investment? No exact figures for the business as a whole can be obtained, but, according to the Ministry of Commerce and Industry, it has not displayed much promise so far. However, its business prospects are not necessarily bad. Japan does not produce films for motion pictures and depends upon imports at present, but it may not be very long before the country is able to produce them on a large scale. The Fuji Photo Film Company, Ltd., capitalized at ¥3,000,000, a subsidiary concern of the Dai Nippon Celluloid Company, and the Oriental Photo Industry Company, capitalized at ¥4,800,000, are trying to produce movie films. Prospects are that in the near future these two companies combined will be able to manufacture 50,000,000 feet of such films a year and they are concentrating their efforts to improve their manufacturing technique and the quality of the products. The Oriental Photo Industry Company is now supplying movie films of its own making for

movie production by the P.C.L. which is an institution closely related to Oriental Photo and is realizing satisfactory results. As large scale production of native films will greatly contribute to the development of Japanese movie companies. As exports Japanese films do not have a wide market, but news reels of Japanese origin have begun to be exported recently and, with a growing interest in Japan among foreign countries, exports of such films should increase. As the Paramount and other foreign movie companies are producing pictures suited to the tastes of Japanese movie-goers, so it will be necessary for Japanese companies to produce the kind liked by foreigners. Japanese films for export must introduce charming scenery, the customs and manners and other interesting and characteristic features of Japan to foreign countries.

A foreign critic of the recent trend of the motion pictures in Japan had the following to say :

"With the average motion picture theater in Japan grossing only about ¥36,000 a year, it is natural that this country should be slow to change to talkies. The installations cost too much. Therefore Japan remains the last stronghold of the silent movie. In 1934 the country made 400 feature-length pictures and of these only 103 used sound-tracks. There are 1,718 theaters in Japan, Korea, Formosa and the Kwantung Leased Territory. Of these, only 710 are wired for sound, 31 with Western Electric, 34 with RCA-Photophone, 57 with Tobis-Klangfilm and 588 with Japanese equipment. Japanese production of silent film dropped, but of talkies remained insignificant but almost doubled. Another trend of importance is the swing away from classical subjects

to modern ideas. Classical pictures are costume dramas, generally very melodramatic in treatment and corresponding in technique to the Westerns in the United States. Whenever Japan feels particularly patriotic, as it did in 1932 and 1933, there is a recrudescence of plays, movies, music and literature emphasizing the spirit of Bushido, the Samurai idea. At present, however, it is on the downgrade. In 1933 about 60 per cent of the features produced in Japan were classical. In 1934 the percentage had fallen to 49."

"Japan seems to prefer the self-consciously artistic. Their own, as well as the European films, contain this to a high degree. Hollywood technique endeavors to personalize, to present atmosphere by its effects upon the players in the drama, or to project it incidentally, without drawing attention to it as such. The Japanese and European manner is to insert scenes with no relation whatever to the plot, with the idea of creating a mood. For example, spring may be depicted by the Japanese by a series of shots of grasses waving in the breeze, birds flying against the sky, children playing or couples walking. This is just about the same as the old silent picture technique and perhaps its popularity in Japan is due in some measure to the fact most of the pictures made in this country are still silents. The old devices still register."



## DOMESTIC COMMERCE

- a. General Outline
- b. Commodity Exchanges
- c. Department Stores Versus Retail Shops
- d. The Warehousing Business

### a. General Outline

The importance of Japanese economy depends largely on industries. The industrial development naturally affects the commercial prosperity. The commercial growth of Japan at present is due largely to this fact. Another important factor is Japan's geographical position. The accumulation and distribution of goods in Japan is done conveniently by shipping. Apart from this international importance of transportation, Japan's domestic transportation has also contributed a great deal to her present commercial status. The State railway freight traffic since 1914 was as follows:

Fiscal years (Apr.-Mar.)	Quantity (1,000 metric tons)	Basic index number of 100 in 1914
1914-15	35 837	100.0
1915-16	60,899	169.9
1926-27	74,780	208.9
1930-31	64,087	178.8
1931-32	60,590	169.1
1932-33	61,733	172.3
1933-34	71,971	200.8

Volume of freight increased considerably, but the fact must not be ignored that the mileage increased at the

same time. Therefore, the amount of freight traffic seems not to have increased so much. However, the development of automobile traffic must be taken into consideration. This has increased to such an extent that the movement of goods in recent years is three times that in 1914. The development of marine transportation in Japan has also been remarkable. The number of steamers in Japan at the end of 1933 was 3,295 with an aggregate net tonnage of 3,780,000 in striking contrast to 2,133 vessels of 1,577,000 tons in 1914. That the increase in the number of ships was less than of tonnage makes it evident that large ships had increased considerably. Japan's commercial expansion is also indicated by her financial development. The amount of bill clearings and accident insurance contracts with particular reference to marine insurance contracts speaks for this. Fire insurance contracts for 1914 totaled ¥1,430,000,000, which increased to ¥18,627,000,000 in 1932. Fire insurance has nothing much to do with commercial transactions, but the marine insurance contracts are closely related. These contracts amounted to ¥113,000,000 in 1914 but 10 years later were five times that. In 1932 the amount totaled ¥1,620,000,000, or 14 times that for 1914.

### **b. Commodity Exchanges**

No security exchange existed in Japan before the Meiji Restoration, because the country lacked the system of modern business transactions. However, the rice exchange system has existed since the days of the Tokugawa Era, although the methods of transactions in those days were different from those at present, which

are largely based on the Western system. The Osaka Dojima Rice Exchange and Tokyo Rice and Produce Exchange were founded in 1876. Because rice is the main food of the Japanese people and transactions are large, many other rice exchanges were established. In 1894 cotton yarn and raw cotton exchanges were founded. Stimulated by active raw silk shipment abroad, silk exchanges were established in Yokohama and Kobe. The exchanges in Japan are mainly on joint-stock and membership systems. Out of 35 exchanges in Japan, 29 are based on the joint-stock basis.

### Rice Exchanges

Japan has 22 rice exchanges, of which seven deal in both securities and commodities. That Japan has so many rice exchanges speaks for the importance of rice as a commodity. For instance, the futures rice transactions at the Tokyo Rice and Produce Exchange in 1920 amounted to 72,000,000 koku, nearly six and a half times those in 1896, and those at the Dojima Rice Exchange were seven times those in 1896. The volume of transactions has, however, been declining since. In 1933 it was only a half that in 1920. This tendency also was witnessed in 1934. The reason was that because of the rice price control policy adopted by the Government, futures rice deals have lost much of their interest. This was an epoch-making event in futures rice transactions. The Rice Control Law has been enforced since November, 1933. The future of rice transactions is doomed to a gradual decline, due to the foodstuff policy of the Government.

## Cotton Yarn Exchanges

The Osaka Sampin (Three Commodities) Exchange was the first of the cotton yarn exchanges in Japan. This institution was founded in 1893. The Tokyo Rice and Produce Exchange founded the Suginomori cotton yarn market in 1917. The same type of exchange was also founded in Nagoya in 1922. These three are the only institutions of their kind in existence. Deals in Tokyo and Nagoya are not heavy and those in 1933 were 1,549,000 bales and 1,590,000 bales respectively, while those in Osaka are the largest, controlling the market in Japan. This is natural, because Osaka is the largest center of the cotton industry. Deals at the Sampin Exchange follow :

(In 1,000 bales)			
1906.....	594	1930.....	7,569
1910.....	367	1932.....	7,403
1915 .....	1,475	1933.....	6,261
1920.....	5,892	1934.....	5,482
1925.....	6,414		

The increasing tendency has become less pronounced in recent years, but no signs of business decline are observed, because of the yearly expansion of the cotton spinning industry. The Sampin Exchange is the only exchange in Japan dealing in raw cotton. Cotton prices in this country are influenced largely by American cotton quotations and the yen exchange rate. Japanese spinning companies utilize this exchange in connection with their purchase of raw cotton from the United States, India and other countries. The cotton transactions there in 1933 amounted to 2,364,000 bales and those in 1934

amounted to 3,284,000 bales.

### Silk Exchange

Raw silk still holds its dominant position in the export trade of Japan, although cotton textiles have threatened to replace it in recent years. Its export value is 20 per cent of the country's entire exports. When raw silk was gaining momentum as the country's premier export commodity, the first silk exchange was founded in Yokohama in 1894 on a joint-stock basis. A similar institution was established in Kobe later. The transactions in Yokohama are far larger than in Kobe. As the silk trading center, Yokohama still occupies the central position. Early in the World War, that is, in 1915, the transactions amounted to only 6,334,000 kin, but in 1920 the total was recorded at 30,785,000 kin and in 1931 it set an all-time record high of 53,642,000 kin. The amount went off somewhat later, but the 1934 figure was large as 50,000,000 kin. The futures raw silk transactions in Yokohama follow :

1906.....	4,121	1930.....	38,442
1910.....	3,295	1931.....	53,642
1915.....	6,334	1932.....	46,574
1920.....	30,785	1933.....	48,566
1925.....	20,103	1934.....	50,297

Pessimism is entertained over the prospects for raw silk, because of the expansion of the rayon industry in recent years, but it is premature to conclude that rayon will totally replace raw silk in the future.

### Rayon Exchanges

Rayon exchanges in Japan are comparatively new, since the rayon industry here has a very brief history. There are three rayon exchanges in Japan at present, namely, the Fukui Rayon Exchange on a membership system, the Osaka Sampin Exchange and the Tokyo Rice and Produce Exchange. They were all founded in 1932 and 1933. Their volume of business is naturally small. Transactions on the Fukui Rayon Exchange, the first of its kind, amounted to 107,470,000 pounds for 1932 and 222,086,000 pounds for 1933. In 1934 its deals dropped to 114,527,000 pounds, but this is expected to be temporary. The rayon exchanges have a promising future, as rayon production in Japan for 1935 is expected, to top world production, outstripping the United States, which has occupied the leading position so far.

### Sugar Exchanges

The history of sugar exchanges in Japan is also brief. It was only recently that self-sufficiency in sugar was realized. Until then Japan depended on foreign sugar quotations. The Osaka Sugar Exchange was founded in November, 1925, on a membership system, and the Tokyo Sugar Exchange in November, 1928. Since their founding, they have had a good business, which seems destined to develop yearly. The former realized a profit of ¥27,000, on a total contribution of ¥92,000 by its members, for 1933 and the latter a profit of ¥14,000 on contribution of ¥62,000.

### c. Department Stores Versus Retail Shops

#### Big Business Done by Department Stores

Department stores are very popular in Japan. They exactly fit the needs of the people and this is the reason why they are so widely patronized. Their quick service, simple business methods, no discount system and other features have appealed to the public. Except for the United States, Japan has seen the greatest development of department stores in the world. All of the Japanese department stores used to be dry goods stores having a history and reputation of many years' standing. The Shirokiya Department Store was founded in 1662, the Mitsukoshi in 1673, the Matsuzakaya in 1707, the Daimaru in 1726, the Takashimaya in 1831 and the Matsuya in 1868. They were not established then as department stores, but as dry good stores. Some of them changed their management during the intervening period, but all retain their original names. Until after the Sino-Japanese War, these shops did not assume the proportions of modern department stores, but remained dry goods stores as in the feudal days. With the subsequent development of capitalism these old-fashioned stores were forced by the social tendency to change their business methods. Until 1904 there were no department stores in a true sense, but in that year the Mitsukoshi Dry Goods Store transformed itself into a department store, the first of the kind in Japan. Later, other shops followed suit and as department stores they have developed steadily since. It was not until the time of the great earthquake and fire in the Kwantō district that the department store business in Japan developed to

its present proportions. During about 10 years between the Russo-Japanese War and the World War the department stores took form as capitalistic enterprises. Japan's capitalism asserted itself during the World War and naturally this affected the department stores. During the War boom all stores expanded their business, increasing their capitalization, and built their imposing structures in modern style. Department stores were then patronized mostly by the moneyed class, with less support of the general public. Well-to-do people used to spend their leisure time "at the Mitsukoshi Department Store today and at the Teikoku Gekijo (Imperial Theater) tomorrow." This saying described an aspect of the manner of living of rich people in those days, which has now changed completely. The Mitsukoshi Department Store now is patronized more by the general public than the wealthy class, while the Imperial Theater has lost much of its former prestige.

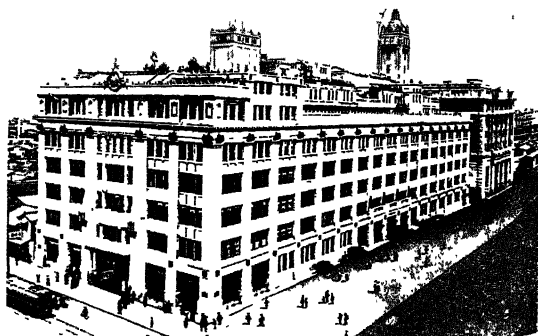
### Department Stores Popularized

The great earthquake-fire of the Kwanto in 1923 reduced Tokyo to a debris of ashes in a single night. The department stores were dealt a telling blow by the catastrophe, but this led them to adopt an entirely different policy. Since then the department stores have become an indispensable medium for distribution of articles of daily necessity to the masses, who in turn have begun to patronize them. With this change of policy, their business has increased considerably. Old buildings have been replaced by new edifices, and new department stores have been founded, with result that the business of the retail shops has been menaced. The conflict



between the department stores and retail shops has become more serious year after year until the gap between them has become so wide that it cannot be bridged. Most of the influential department stores in Japan are now under the control of the department store commercial guild law. Their number is 48 and, if their branches are added, they total 97 in all, large and small. The total area of these department store buildings is 229,700 tsubo and the total number of their employes is 48,500. Money invested in them all reaches ¥800,000,000 and their annual sales are estimated to total ¥400,000,000. Since the annual consumption of the Japanese public is roughly estimated at ¥9,000,000,000, the sales of the departments stores amount to 4 per cent of the total. Six of them, namely, Mitsukoshi, Matsuzakaya, Matsuya, Shirokiya, Takashimaya and Daimaru, are by general consent regarded as the "Big Six." The Mitsukoshi Department Store leads the Big Six group from every angle. Its annual sales exceed ¥90,000,000. Matsuzakaya is the Macy's of Japan. While Mitsukoshi has people of the upper and middle classes as its patrons, Matsuzakaya mostly caters to middle class people, selling practical goods. It is the biggest rival of Mitsukoshi. Daimaru has established its position beyond dispute in the Kwansai district. Matsuya is after customers among upper and middle class people, as is the case with Mitsukoshi. Shirokiya centers its policy on the branch shop business. Takashimaya is an old and creditable shop.

(1)



(2)



(3)



- (1) The Mitsukoshi Department Store (Head Shop), Nihonbashi, Tokyo
- (2) Ueno (Tokyo) Branch of the Matsuzakaya Department Store, Nagoya
- (3) The Shirokiya Department Store, Nihonbashi, Tokyo



### How Far Will Department Stores Go?

The department stores have now outdistanced retail shops in competition. In spite of the general depression, they are doing a good business, but it is not justifiable to think that their business will continue to be as prosperous as ever for years to come. Observers say the department stores have already reached the high water mark of their prosperity. For example, a joint investigation by the Tokyo City Office and the Ministry of Commerce and Industry reveals that the total annual retail sales in Tokyo for 1931 amounted to ¥657,000,000, one-third of which or ¥211,000,000 was in department stores. If the subsequent business expansion of Mitsu-koshi, Takashimaya and Shirokiya is taken into consideration, the ratio of their sales to the total retail sales of Tokyo is estimated to have gone up over 30 per cent. Considering the fact that the highest sales ratio of department stores in Europe and America to the total retail sales is 30 per cent, the present situation of the department stores in Japan is believed to have attained the point of saturation. Of course, an increase of population and purchasing power will follow, but, on the other hand, competition among rival stores and with retail shops will become keener. No increase of their profits can be expected under the circumstances. High profit rates ranging from 30 to 40 per cent of their paid up capitalization are a thing of the past. During the five years from 1929 to 1933 the combined paid up capitalization of these "Big Six" department stores increased from ¥48,000,000 to ¥67,000,000, while their net profit ratio declined from 12.2 per cent for 1929 to

7.7 per cent for 1933. These department stores abolished free passenger transportation service, narrowed the limit of free delivery of articles sold and withdrew plans to establish branches a few years ago for the ostensible reason of abandoning competition with retail shops, but, in reality, to retrench in unnecessary expenses. However, Japan as a whole still has room for expansion of department stores. In course of time, retail merchants in provincial districts will join to establish department stores, large or small, to meet the tendency of the day. The stores in large cities are also destined to seek new fields of activity in the provinces and to expand their business there in competition with local department stores.

### Retail Shops in Distress

The farm depression and economic distress of medium-sized and small businesses and industries are the two largest questions confronting industrial circles of Japan. Since the great earthquake-fire of 1923 the commercial and industrial people of medium and small means have been in economic difficulties and this has come to be regarded as a serious social problem in recent years. Before the 1923 calamity the department stores mostly aimed at selling their goods to people of comparative means, and this business policy naturally did not injure the retail shops at large. Now, the department stores have attracted people of all walks of life and this has dealt a severe blow to the business interest of retail shops, which are now forced to make a radical change in their business policy as a question of life and death. It is true that the business expansion and activity of department stores have affected the retail shops, but this

is not the only cause that has brought the latter to their present plight. Retail shops have many defects to remedy. First, there are too many such shops. In Tokyo there are 70,069 small shops, of which 61,168 are engaged exclusively in retail business and 8,901 in retail and wholesale business combined. This means that one retail shop of one kind or another exists for every six families, or 30 persons. Bakery and confectionery shops lead. Details follow :

Kinds of Retail shops	Number	No. of families per shop	Population per shop
Bakery and confectionery	10,389	38.9	199.3
Foodstuffs	7,065	57.7	293.1
Clogs, umbrellas, etc.	4,539	90.4	456.2
Rice and cereal dealers	3,521	116.8	588.2
Dry goods	3,081	133.6	672.2
Fruit shops	2,812	146.5	736.5
Total including others	70,069	5.9	29.6

Because of the existence of a great number of retail shops, their business is naturally small and capital is also small. The following are figures that reveal on what an insignificant scale their business is conducted. The average capitalization of a retail shop in Tokyo City proper is ¥3,000 and the average annual sales is ¥4,800. The average profit is ¥162 a year. How the retailers can live on such a small profit is a mystery. Second, these superfluous small shops compete with one another without order and evils are attendant on them as a matter of course. They lack co-operation and control. The Government has enforced the commercial guild law, but this will not relieve their predicament. Lastly, the most serious problem confronting the retail shops is

financial. They have no financial organ of their own. Banks hesitate to lend them money and, consequently, they borrow money at usury rates from other sources. They depend upon their wholesalers and also upon banks, credit guilds, mutual financing associations, insurance companies and pawnshops. The percentages of their borrowings are 21.6 per cent from wholesalers, 21.4 per cent from banks, 18 per cent from private money lenders, and 57.9 per cent from irregular monetary organizations.

#### d. The Warehousing Business

The number of business warehouses in Japan at the end of 1932 totaled 441 with an aggregate capitalization of ¥133,646,000, which is only 2 per cent of the total capitalization of ¥5,989,000. The warehousing business plays an important part in commercial activities, but a large amount of capital is tied up in it. The profit of the warehousing business for 1932 amounted to ¥4,130,000 as against the loss of ¥658,000, the net profit being ¥3,472,000. The net profit is only 2.6 per cent of the total paid capitalization in contrast to the profit rate of 4.7 per cent for general commerce.

#### Warehoused Goods

End of	Number of warehouses in Japan	Units of warehoused goods (In 1,000)	Value of warehoused goods (¥ 1,000)
1914	76	15,658	124,570
1919	79	28,589	751,518
1924	100	19,995	500,514
1929	97	22,300	473,353

1930	97	21,270	356,844
1931	96	24,135	410,988
1932	98	23,134	486,144
1933	106	28,893	585,085

Prices at the end of 1933 were still lower than during the World War and, consequently, the value of their goods at the end of that year was smaller than at the end of 1919. Since 1924 the value has shown an upward trend. Warehoused goods mostly consist of raw materials, foodstuffs and textil products. Of the value of warehoused goods at the end of 1933, 20.9 per cent was rice, 18.7 per cent silk yarn, 11.6 per cent raw cotton and 7.5 per cent wool, making a total of 58.7 per cent. All warehoused goods are insured against fire. At present, the custom in Japan is that the warehouse companies become, on their own account, insurers of the good for the customers, who, therefore, get the benefits of insurance without going to the trouble of insuring them, which differs from that in Europe and America. Storage charges are calculated on a combined ad valorem and weight basis. Therefore, when the price of an article declines, the storage charge declines also. Different ad valorem rates exist for different classes of goods and the same is true of the charges by weight, the extent of responsibility of the warehousing company and the importance of any particular goods to the public at large being taken into consideration. For instance, rice is a necessity of life for the Japanese, so the rate is very low. For weight or measurement, goods are divided into 60 classes.



## **JAPAN'S FOREIGN TRADE**

- a. Remarkable But Natural Expansion
- b. Secret of Foreign Trade of Japan
- c. Important Part Played by Newly-Developed Industries
- d. New Market for Japanese Goods
- e. Trade Regulation and Commerce

### **a. Remarkable But Natural Expansion**

The expansion of Japan's foreign trade in recent years has become an object of amazement to the world. Hurdling the increased tariff barriers and in the face of import prohibitions, restrictions, quota systems, exchange control and other steps against Japanese imports by almost all other countries, they are acquiring new markets abroad. The present trade expansion of Japanese goods is unprecedented. In Japan at first people doubted whether such a sudden prosperity would last long, but they have seen it last and it promises to continue. Since 1932 the expansion has had no interruption and it bids fair to last indefinitely. Naturally, the effects on the outside world of this trade expansion have been far-reaching. The world has been criticizing Japan for the alleged sin of so-called social dumping, or exploiting labor in order to unload its products on the international market, has been distributing masses of propaganda and raising tariffs and other trade barriers to stop Japan's commercial advance. However, the advantage of this country has been much less important than many would believe. Cheap and high quality Japanese goods have continued to flood the markets of the world.

Attempts to stop the vigorous advance of Japanese goods have proved futile so far at least. It is true that Japan's exports have been rising when those of the rest of the world have been standing still or falling, but Japan has been buying at least as much as it has exported, perhaps more. Now the world seems to have come to realize the superiority of the Japanese foreign trade and that mere attempts to check the imports of Japanese goods will be useless. Other nations have seen it necessary to readjust their own export goods manufacturing industry to counteract the trade expansion of Japan. Before elaborating on the phenomenal trade development during these several years, it will be necessary to give a brief history of Japan's foreign trade for the last 70 years. The country's foreign trade can be divided into four periods: the first, before the Sino-Japanese War; the second, after the Sino-Japanese War; the third, from the Russo-Japanese War to the outbreak of the World War; and the fourth, the period following it. Early in the Meiji Era the foreign trade was insignificant, mostly being done through foreign firms, but several Japanese concerns were later founded, among them being the Mitsui Bussan Kaisha, established in 1876. The Yokohama Specie Bank was founded in 1880 to serve as a financial organ for firms engaged in foreign trade. The Nippon Yusen Kaisha and Osaka Shosen Kaisha were founded to carry on overseas marine transportation. During this period Japan's economic conditions were primitive. Her export volume between the first year of Meiji, 1868, and the 18th year was small—an average of one yen per capita. The import value was about the same. The Sino-Japanese War was an epoch in the national destiny

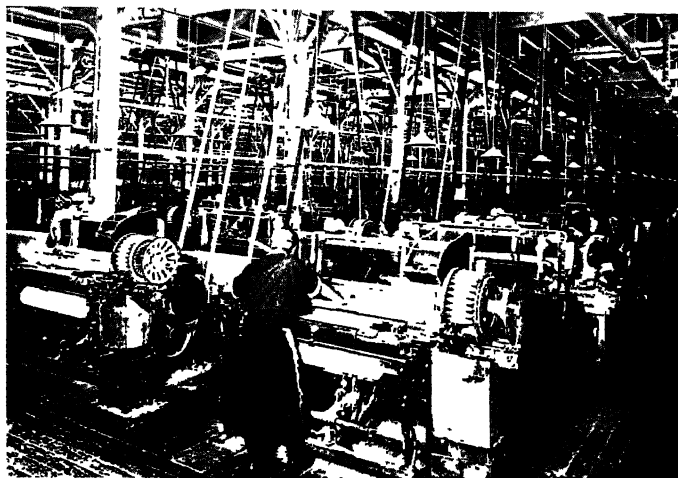
of Japan. Foreign trade received a great impetus and considerable development followed. In 1894, when the war broke out between Japan and China, exports and imports were each more than ¥100,000,000, and, in 1903, the end of the second period, exports amounted to ¥289,000,000 and imports ¥317,000,000. The explanation of this sudden expansion lies in the fact that as a result of Japan's victory over China her sphere of influence was greatly extended in China and Korea, and with the Government and people concentrating their energies on overseas economic expansion great business activity ensued. The navigation encouragement law was promulgated in 1896 and this accelerated the inauguration of overseas navigation by Japanese shipping companies. In connection with a revised tariff policy export duties were abolished and import duties on industrial materials were either abolished or reduced. Until 1887, about 87 per cent of Japan's export trade and 88 per cent of her import trade was handled by foreign merchants. The Russo-Japanese War imparted a far greater impetus to the country's foreign trade than the Sino-Japanese War, and the trade sphere was widened still further. Japan's international position was elevated and her foreign trade was stimulated. The market for Japanese goods was greatly enlarged in China, Korea and other Oriental countries, as well as in South Sea countries. Foreign capital flowed into the country for investment. Exports attained the ¥300,000,000 mark in 1904 and in 1913 they reached ¥632,000,000 and imports amounted to ¥729,000,000. In 1901 Japan acquired complete tariff autonomy, and was able to establish the foundation of a protective tariff policy. In 1901, exports through foreign

merchants were only 48 per cent, while those through Japanese merchants were 52 per cent. Between 1914 and 1918, when the World War was in progress, Japanese economy and finance made sweeping gains and the unprecedented economic prosperity lasted until March, 1920, when a great reaction took place. Exports which were only ¥600,000,000 in 1914, the first year of the fourth period of the trade development of Japan, went above ¥1,100,000 in 1916, and in 1919 the amount exceeded ¥2,098,000,000, setting an all-time record. Imports which were ¥600,000,000 in 1914 advanced to ¥1,000,000,000 in 1917 and finally to ¥2,336,000,000 in 1920. Special mention must be made that for four years from 1916 to 1919 Japan witnessed a large excess of exports. Since then the country's foreign trade had kept sinking until the replacement of the gold embargo in December, 1931, started the prevailing phenomenal development. To show the growth of Japan's foreign trade in figures, the value of the exports of Japan Proper and South Saghalien for 1931 amounted to ¥1,147,000,000, which advanced to ¥1,410,000,000 in 1932 and further to ¥1,861,000,000 in 1933. The 1934 value attained a high of ¥2,171,000,000. Within only three years, the export figure nearly doubled and the tendency continued into 1935, as each monthly figure showed a gain of more than 20 per cent over the year before. Imports kept pace. Back in 1931 the total import value amounted to ¥1,136,000,000, but in the following year it advanced to ¥1,431,000,000 and in 1933 the total was ¥1,917,000,000, attaining ¥2,283,000,000 in 1934. The 1934 figure is twice the total for 1931. The Empire's trade volume involving Japan Proper, Korea and

Formosa, for 1931 showed an excess of imports totaling ¥140,000,000 in contrast to ¥138,000,000 for 1934. Both exports and imports had doubled in that period, but the trade balance make no large change at all. This signifies that the country's international payments have improved materially, because the increase of visible foreign trade results in increase of the invisible foreign trade such as freight shipping income, the profit of overseas labor and others. Japan's international payments for the last five years follow :

#### Japan's International Payments for Five Years

Items	1930	1931	1932	1933	1934
		(In ¥1,000,000)			
Total exports....	1,470	1,147	1,410	1,861	2,172
Total imports ..	1,546	1,237	1,431	1,917	2,283
(A) Import excess .....	76	90	21	56	111
(B) Import excess .....	85	51	46	29	32
Total Import excess .....	160	141	59	78	143
Ordinary invisible exports.....	525	447	577	644	522
Ordinary invisible imports	392	363	462	577	328
(C) Invisible export excess ..	133	84	115	87	194
Inflow of Capital	431	440	190	294	
Outflow of Capital	579	672	291	315	
(D) Excess of capital outflow	148	233	100	21	237
Total of (A) (B) (C) (D) ....	175	290	44	12	186
(E) Movement of gold .....	287	388	112	21	



Part of the Interior View of a Mill of the  
Kanegafuchi Spinning Co., Ltd.



The Whole View of the Tonda Mill of the Toyo  
Spinning Co., Ltd.



(A) and (B) include the import and export excess of silver. The 1934 figure is based on the estimates of the Governor of the Yokohama Specie Bank. As is seen above, Japan's invisible trade for 1934 resulted in an excess of exports of ¥194,000,000. Mostly by Japan's investments in Manchoukuo and the redemption of Japanese electric power debentures in foreign currencies by purchase, Japan witnessed an outflow of capital by ¥237,000,000, but materially this is no source of concern. Japan's international payments, taking into consideration the invisible trade accounts and import excess figures for Japan Proper and its colonies, resulted in an excess of payments abroad of ¥186,000,000. However, it is doubtful whether such an amount was really paid, because of the fact that there was virtually neither outflow of gold nor a decrease of Japan's specie abroad to cover this excess of payments and, moreover, Japan's exchange rate was practically stabilized. According to the Finance Ministry, Japan's overseas specie at the end of October, 1934, was ¥360,000,000, showing a small decrease of about ¥25,000,000 from the year before. No gold was exported during 1934, but the exchange rate remained stabilized through most of 1934. This indicates that Japan's international payments were in fact well-balanced. One should not accept too literally the foreign trade figures of any country, for there is an almost constant margin of error in compilation of data on exports. In this connection, a high official of the Finance Ministry is said to be of the following opinion: "Export trade figures are excellent to show relative gains and losses from year to year but they mean comparatively little when you use them to check the international



payments we may be called upon to make. Japan has had negative trade balances throughout its history, with the exception of the World War years. If you add up these import excesses and adjust them by using the reported invisible balance in our favor, you will find that Japan still is tremendously in debt to the world. If things were that bad they would be terrible. But they are not. Despite all these negative balances, despite the tremendous total which has been piled up, Japan actually has money invested abroad. We discovered that in 1932, when the Finance Ministry required investors to report on their foreign holdings. Import figures are worked out carefully, for duty must be paid in many cases. Export figures are compiled from the declarations of exporters and many factors combine to make them inaccurate. When considering foreign trade figures you must always keep that fact in mind." The discrepancies mentioned by him are caused mostly by ad valorem duties. It is common knowledge that shipments to China are valued at an average of about 80 per cent of their real value. The same probably obtains on shipments to other parts of the world. One very efficient way to reduce import duty payments is to force the receiver to pay part cash with his order and then to invoice for the balance. In the days when most foreign traders wished to gamble in foreign currencies, due to the steady downward course of the yen, they tried to pile up foreign balances and there were a great many undervalued shipments, made with the idea of evading the Foreign Exchange Control Act. The exporter would draw against his branch abroad for as little as he dared, allowing the branch to pile up foreign currency credits.

It would be convenient to possess some average figure with which to correct Japan's export data. Such a factor is difficult to discover, but it appears to be in the neighborhood of 5.06 per cent, probably lower. The following figures show the basis for this estimate:

	All-Japan Exports	Balance of Accounts (Including Invisibles)
	(Millions of yen)	
1889-1913.....	6,656	-951
1914-1934.....	32,409	+321
Total.....	39,065	-530

In October of 1934 Japanese held credits abroad to a total of ¥1,450,000,000. Add this figure to the apparent net unfavorable balance shown above and divide it by the exports and the margin of error appears to be 5.06 per cent. For the past four years Japan's adverse trade balance has aggregated ¥546,096,000. Subtracting 5.06 per cent of the exports for that period from the total, the result is an unfavorable balance of ¥212,665,000. For the past three years there has been a favorable balance of ¥19,000,000. Figures on the foreign trade of the Empire follow: Since 1932 imports and exports of specie and bullion have been small. In that year exports totaled ¥121,408,349. In 1933 they were ¥28,633,708 and last year they fell to ¥13,942,969. Imports have been negligible, failing to exceed ¥1,000,000 in any of the three years. In 1934, even with the possible 5.06 per cent margin of error taken into consideration, Japan had an unfavorable balance of trade. Figures indicate that this could have been favorable if non-economic purchases for military and

naval account had been eliminated. If these continue, it will be difficult for Japan to show a favorable trade balance, for most imports are for use in manufacturing. In 1934 80 per cent of the imports were raw materials or semi-finished goods. In food Japan is almost entirely self-sufficient. It actually had a tremendous surplus of rice but its cost is too great to allow it to enter the world market. Countries within economic transportation range can all produce rice more cheaply than Japan. When one considers the practically concerted efforts of the countries of the world to strangle international trade, the gains made by Japan have been remarkable. This country has been faced not only with general tariff barriers and quotas which all world trade has been obliged to hurdle but has been the victim, as well, of special restrictions, designed to offset the depreciation of the yen. A list of the countries which have placed bars in the way of Japanese trade since 1931 would include practically every country which manufactures anything. During 1934 the following raised their rates. Manchoukuo, British India, Ceylon, French Indo-China, Syria, Palestine, Great Britain, France, Belgium, Italy, Austria, Czechoslovakia, Holland, Sweden, Mexico, Portugal, the United States, Canada, El Salvador, Egypt, the Belgian Congo, Australia and New Zealand. Countries which restricted imports were British India, Ceylon, the Straits Settlements, Borneo, Aden, Kenya Territory, Uganda, Tanganyika Territory, Great Britain, France, Italy, Belgium, Switzerland, Holland, Norway, Greece, Turkey, Cuba and the Dutch East Indies. Germany and several of the South American countries put new exchange control ideas into force. Italy was the only country

which prohibited imports in certain categories in 1934. The exchange rate of the yen began to go down after December, 1931, when Japan replaced the gold embargo. It gradually declined from \$49  $\frac{3}{8}$ , the mint par value, until it touched a bottom of \$19  $\frac{3}{4}$  in November, 1932. As a counter measure the Government enforced a law for preventing the flight of capital abroad in July, 1932, and in May, 1933, it also enforced the Exchange Control Law. Stimulated by the increase of exports, the yen recovered to \$30 toward the end of 1933. The yen-sterling quotation has remained stabilized at 1s 2d for more than two years since November, 1932. In spite of this stabilization of exchange rates, Japan's export trade has kept ascending yearly. The fact reveals that the trade expansion of this country is not necessarily caused by the low exchange rate.

### **b. Secret of Foreign Trade of Japan**

How the great expansion of Japan's trade has been realized in so brief a space of time is an interesting matter to be studied. The so-called social dumping of Japan is often made a subject of discussion in foreign countries, but this criticism is not right. Secrets of Japan's foreign trade are quite open. Those who have more or less concern in Japan's economic situation understand the matter well. Mr. Yunosuke Yasukawa, formerly the chairman of the Mitsui Bussan Kaisha, the greatest trading concern of Japan, has mentioned the following as causes for Japan's export trade expansion:

- (1) The prolonged business depression and the financial retrenchment policy, sponsored by the Hamaguchi Cabinet, had caused Japan to carry out industrial

rationalization. Many business institutions of shaky foundation have been eliminated by these severe ordeals. Reduction of capitalization and dividends was the order of the day. Bad assets were written off. Every available effort was made to increase efficiency.

(2) The Japanese people are known for their sound character. They are inured to simple living. Education is wide spread and scientific knowledge is penetrating among the public. They have thus acquired valuable experience in various fields.

(3) Because the country is devoid of natural resources, its people are trained how utilize things which other nations leave as waste. For instance, odds and ends of waste yarn left unused by Americans and others are imported and re-manufactured as fairly good weaves. For another instance, out of waste fluid of chemical used in the making of rayon yarn and paper is made caustic soda, which is used once more.

(4) In invention Japanese display their genius and are inventing excellent things, quite independent of Western imitation. In equipment and manufacturing methods, Japanese are original.

(5) In modern industries, Japan lags behind advanced countries of the West, but, on the other hand, this fact means that Japan is in a position to adopt the most advanced mechanical equipment as it pleases, selecting it from all other countries.

(6) Oriental countries such as China, South Seas countries and India are yet industrially infantile and leave much room for development. These countries are very populous and the mode of living of their

peoples much resembles that of Japanese. Naturally, these Orientals welcome Japanese commodities more than Western articles of superior quality.

(7) Japan is a country, where the family system is highly developed. In this country, employers and employes mix in a congenial family atmosphere. Naturally, capital and labor are well harmonized.

(8) Since the Manchurian Incident, Japan has been internationally isolated and a sense of crisis has been supreme among the people. This has prompted them to determine to surmount difficulties confronting them. From these facts, it is seen that the determination of the Japanese people has been reflected materially and spiritually in the export trade. The Tokyo Chamber of Commerce and Industry has recently announced the results of its investigation on the causes of the upward turn of 10 principal export goods of Japan for 1934 as follows:

**Cotton goods.** Export value was ¥492,351,000. Exports are influenced by the exchange rate. Low wages greatly affect exports. Business management is efficient and the market system is simple.

**Knitgood.** Export value totaled ¥47,617,000. The exchange rate affects the exports. Because the knit-goods industry is carried on largely as a "household" sideline, the low wage affects exports. Low priced materials are used, as the cotton industry is highly developed. Handicraft of Japanese is a great asset of this industry. Small broker commissions are witnessed in this industry.

**Woolen goods.** Export value totaled ¥29,484,000. More or less influenced by the exchange rate. Wages

in Japan are in contrast to high wages in Great Britain. Japanese technique is important.

**Rayon goods.** Export value totaled ¥113,484,000. More or less influenced by the exchange rate. Low wages are a great asset of the industry. Japan has a large amount of materials suited to the manufacturing of rayon goods for consumption by the mass. This industry has gone through a throughgoing rationalization of business management and has seen great technical progress.

**Cement products.** Export value totaled ¥8,038,000. The exchange rate and low wage have something to do with their export. Technical improvement is favorably affecting the export interest.

**Porcelain ware.** Export value totaled ¥41,877,000. The exchange rate affects their exports less. Because the industry is mostly on the basis of a "household sideline," the wage is low and this is an influential factor for active export. Technique is excellent unique to Japanese handicraft.

**Enamelled ware.** Export value totaled ¥4,266,000. The exchange rate has very much to do with their export situation.

**Electric light bulbs.** Export value totaled ¥8,942,000. The exchange rate stimulates exports of bulbs. The industry is based on the "household sideline" and materials are self-sufficient. These are assets to exports.

**Bicycles.** Export value totaled ¥18,904,000. The exchange rate affects exports. Based on the "household" job, rims as well as parts are manufactured at low cost of production. Good technique is also an asset.

**Wheat flour.** Export value totaled ¥28,451,000. Japanese wheat flour millers are in a position to buy wheat from the United States, Canada and Australia as price suits them. This, combined with highly developed industrial rationalization, is advantageous for flour exporting.

In the first place, the low exchange rate has begun to favorably affect the exports of highgrade knitgoods, which had not been shipped heavily. The same is true of enameled ware, of which exports used to be limited to lowgrade goods. Materials for woolen cloth are exclusively imported and consequently the advantage of exports are offset by a high import price, but low wages are a great asset. The same may be said of wheat flour, but the Japanese flour industry has attained a highly developed stage with its throughgoing rationalization. This is a greater weapon of the flour milling industry than the low wage. At any rate, it can be said that the low exchange rate is not an absolute factor in the export trade expansion of Japan. Second, let's look at the labor wage situation. The cotton spinning and weaving industry employed a large number of girl operatives. They are constantly replaced. Because of this, no serious labor question ever arises and they are satisfied with a low wage. Low wages are important in the manufacturing of some special parts of knitgoods done as a household sideline. This is also the case with the rayon textile, porcelain, electric light bulb and bicycle industries. Third, as regards the business management and industrial technique, the cotton spinning industry is outstanding in its concentrated management, while the knitgoods industry is unique for its divisional industrial

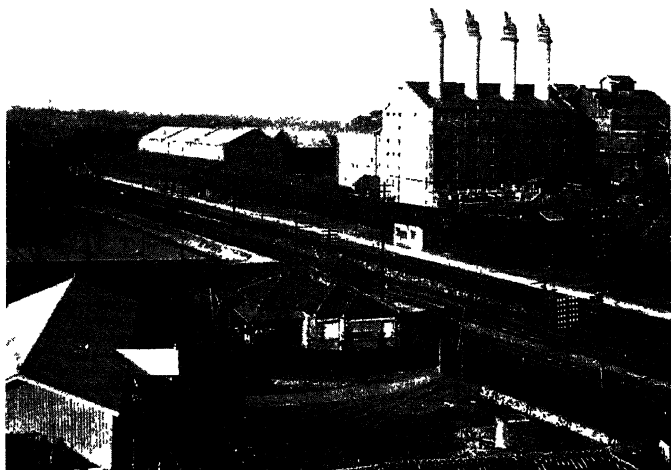


system. The two stand in contrast in management. However, both have a simple market system with less commission paid to brokers. The flour milling industry takes pride in its technical progress. The manufacturing of low-priced knitgoods to meet the needs of the lower plane of living in British India, Ceylon, South Seas countries, Near Eastern countries and Africa is a feature of the Japanese knitgoods industry. The same is true of the bicycle industry. Japan has had great success in the exportation of rayon weaves. Designs suited to the fancy of consumers abroad have contributed to this success. The porcelain industry has prospered, as Western countries are forced to use cheap-priced Japanese goods. Flour is almost exclusively exported to Manchoukuo. This, coupled with the high price of wheat bran, has led the industry to great prosperity. The conclusion is summarized as follows:

(1) "Cheap exchange rate" of Japan is, generally speaking, not the primary reason for the favorable export trade, when the trade situation is viewed by industrialists.

(2) Japan's export goods manufacturing industry is rooted in "low wages," "efficient productive equipment," "simple industrial system" and "excellent handicraft," and all these combined constitute a firm foundation for overseas expansion of Japanese goods.

(3) Even without the influence of the exchange rate, Japanese goods would be destined to expand abroad because of a modernly-equipped factory system, the unique household sidelines based on the family system and the present wage which Japanese industrial laborers find adequate for their living. With these



Meguro Factory of the Dai Nippon Brewery Co.



Interior View of a Factory of the Dai Nippon Brewery Co.



strong assets Japanese goods will never cease to press upon foreign markets. These facts are clearly indorsed by Mr. Fernand Moret who submitted a report of the results of his study of the industrial status of Japan a few years ago instructions of the Labor Bureau of the League of Nations and also by Mr. John G. Latham, Minister for External Affairs of the Commonwealth Government of Australia, who also visited Japan recently.

### c. Important Part Played by Newly-Developed Industries

The reason for the development of Japan's export trade can be seen more clearly from actual trade conditions. Naturally all Japanese export goods have not realized expansion in the same degree. Some of them have made a specially conspicuous development, but others lagged behind. Newly-developed industrial products have been outstanding in the extent of gains in overseas markets. The export value of most important years, classified by products, with their percentages follows :

	1929	1931	1933	1934
	(Export value in million yen)			
	(Export ratio in per cent)			
Raw silk :				
Export value	781.0	355.4	390.9	286.8
Export ratio	35.8	31.0	21.0	13.2
Silk textiles :				
Export value	145.0	43.1	63.5	77.5
Export ratio	6.8	3.8	3.4	3.6
Cotton yarn :				
Export value	26.8	8.5	15.7	23.5
Export ratio	1.2	0.7	0.8	1.1

Cotton textiles				
Export value	412.7	198.7	383.2	492.4
Export ratio	19.2	17.3	20.6	22.7
Total :				
Export value	1,365.5	605.7	853.4	880.2
Export ratio	63.5	52.9	45.8	40.5
Others :				
Export value	783.1	541.3	1,007.7	1,391.7
Export ratio	36.5	47.1	54.2	59.5
Grand total :				
Export value	2,148.6	1,146.9	1,861.0	2,171.9
Export ratio	100.0	100.0	100.0	100.0

Japan's "Big Four" export commodities, namely, raw silk, silk textiles, cotton yarn and cotton textiles, combined accounted for 63.5 per cent of the total export value in 1929 before the universal economic panic, while all miscellaneous goods combined were 36.5 per cent. Subsequently, however, these percentages have changed gradually and in 1934 the ratio of the Big Four commodities dropped to 40.5 per cent and, on the other hand, that of miscellaneous articles advanced to 59.5 per cent. Miscellaneous articles also can be divided into three groups, namely, (A) goods which dropped considerably, (B) those making no appreciable change and (C) those which increased greatly. Details of these miscellaneous articles for 1934, compared with 1929, follow :

	1929	1934	Comparison
	(In million yen: In per cent)		
Group "A":			
Export value	124.9	67.2	(-) 57.7
Export ratio	15.9	5.2	

## Group "B":

Export value	230.7	251.0	(+) 20.3
Export ratio	29.5	5.2	

## Group "C":

Export value	427.5	973.5	(+) 546.0
Export ratio	54.6	75.4	

## Total:

Export value	783.1	1,291.7	(+) 50.9
Export ratio	100.0	100.0	

Group "A" includes refined sugar, coal, aquatic products, beans, tea, waste yarn, camphor, camphor oil, fish oil and whale oil. Group "B" includes such goods as porcelain, knitgoods, paper and paper articles, wheat flour, lumber, hats, copper, brass, vegetables and fruits, decorative articles, cement, peppermint oil, menthol crystal, buttons, brushes; waste cotton, waste yarn, etc. Group "C" contains others not mentioned in Groups "A" and "B." In 1929 the export value of Group "C" goods amounted to ¥427,500,000 but in 1934 it increased to ¥973,100,000, a conspicuous gain of ¥546,100,000, or 128 per cent. To be specific, the export value of machines and parts increased four times, iron 10 times, canned and bottled provisions twice, cars and parts three and a half times, iron products one and a half, toys the same extent, woolen textiles six and a half times, metal products other than iron one and a half, clogs 45 per cent, watches and scientific instruments three times, glass 43 per cent, electric light bulbs 62 per cent, dyes and paints three times, woolen yarn 14 and a half times, and vegetable oils 50 per cent. No export was made of rayon yarn, rayon textiles and fish meal until 1927, but

since then they have been greatly increasing. In 1934 the export value of rayon yarn amounted to more than ¥20,000,000, of rayon textiles ¥100,000,000 and that of fish meal ¥10,000,000. These figures indicate that the newly-developed industries of Japan are gradually turning themselves into the export goods manufacturing industries. Naturally, imports of such goods have decreased perceptibly. Goods which could be replaced by Japan-made articles were imported to the amount of ¥634,000,000 for 1929. Because of the industrial development realized in Japan later, the country was able to make them at home and, consequently, the imports of these goods for 1934 declined to ¥357,000,000. However, there are many articles which Japan cannot manufacture, due to lack of natural resources, and these goods must be imported under any circumstances. In 1929, the export value of manufactured foodstuffs and finished manufactured products combined occupied 48.8 per cent of the total and that of roughly-made foodstuffs, manufactured goods for raw materials and raw materials was 47.4 per cent. They were nearly the same then, but the former advanced to 67.7 per cent, and the latter decreased to 28.5 per cent for 1934. This indicates the highly developed industrial condition into which Japan is evolving. Imports show the same tendency. In 1929 imports of manufactured foodstuffs and finished manufactured goods combined was 18.2 per cent and in 1934 it was 19.7 per cent, nearly the same. On the other hand, the ratio of roughly-made foodstuffs materials and manufactured goods for materials gained to 85 per cent for 1934 from 80.9 per cent for 1929.

**d. New Market for Japanese Goods**

The development of the Japanese export trade to such a high degree is due to the success of Japanese industrial goods in the acquisition of new markets abroad. Of good quality and low price, Japanese goods have penetrated deep into new markets, where rival products are comparatively scarce. In old markets in advanced countries Japanese goods can find no large sale, hampered by tariffs and quota systems directed against encroachment of these goods. It is natural that Japanese goods have found their way into less industrially advanced countries, such as Manchoukuo, the Near East, Africa, Central America and South America. The exports of Japanese goods to new and old markets for four years follow :

Destination	1929	1932	1933	1934
		(In million yen)		
China and Hongkong	407.7	147.5	131.7	150.0
Manchoukuo and Kwantung	124.5	146.5	303.2	403.1
British India	198.1	192.5	205.2	238.2
Dutch East Indies	87.1	100.3	157.5	158.5
Other Asiatic countries	97.8	90.8	133.0	219.2
European countries	147.2	127.2	182.1	227.8
North America	947.7	454.0	499.2	407.6
Central America		5.1	10.2	43.3
South America	23.0	13.1	30.4	61.5
Africa	60.5	85.7	137.2	182.4
Australia	54.8	42.3	65.4	79.9
Total	2,148.6	1,410.0	1,861.0	2,171.9

Exports to Central and South America have advanced with amazing rapidity. Central and South American countries are mainly agricultural. Affected by the



universal agricultural depression, their purchasing power has declined considerably. This is why they are welcoming good and low-priced articles from Japan. However, some of these countries have begun to take measures to prevent Japanese goods from entering indiscriminately. A list of the measures restricting Japanese imports taken by Central and South American countries follows :

Cuba raised its tariff on Japanese goods in September of 1933 and abrogated its convention with Japan in January, 1934. El Salvador has revised its tariff, applying the highest rate on Japanese imports. Haiti has been contemplating a higher tariff against Japanese goods since August, 1934. Costa Rica is making preparations to check Japanese cotton cloth and rayon textile imports. Guatemala imposed the highest tariff on Japanese goods in February, 1935 and this has virtually blocked the importation of these goods. Peru abrogated its trade convention with Japan in October, 1934. Negotiations are progressing for the conclusion of a new convention. Argentina has been enforcing exchange control, which means Japan is unable to sell more than it buys from Argentina. Brazil has been enforcing export control, raising its tariff at the same time on Japanese buttons, porcelain and electric bulbs. Uruguay has been enforcing import restrictions on Japanese goods since November, 1934. Colombia in October of that year abrogated its trade convention with Japan. It has been enforcing exchange control since 1931. Ecuador in May, 1934 temporarily prohibited the importation of cotton, silk cotton and rayon cloth and knitted goods. This law is still in force. A Japan-to-Africa Export Cotton Yarn and Cloth Guild has been established by 11 leading

concerns interested in the African trade. The guild is vested with authority to enforce control of the quality, quantity and price of exports for Egypt, the Union of South Africa, Morocco, the Congo and other regions. Japanese traders have been particularly successful on the Arab side of the Persian Gulf. A continued shortage of money has made the demand for cheapness, with less respect for quality, increase rapidly. This money shortage appears to have been of tremendous help to Japan in its efforts to establish a strong commercial position in the Gulf. The Bahrain group of islands off the northeast coast of Arabia form a typical example. Here imports from Japan are the only ones to show a continued increase since 1931. Indian imports dropped from a value of 5,700,000 rupees to a value of 4,200,000 rupees in those years. Negotiations for trade readjustment have been opened by the Japanese Embassy in Turkey, with the Iraq Government at Bagdad. The export of Japanese goods to Iraq has considerably increased in recent years. The 1934 imports from Japan totaled ¥1,000,000, coming second to British goods, but imports into Japan from that country in the same year were very small. The Japanese Government will ask the Iraq Government to conclude a Japan-Iraq trade convention, according most-favored-nation treatment to Japan. This country also will propose buying Iraq wool and raw cotton to readjust the one-sided trade. Japan has no idea at all to monopolize trade expansion. Foreign trade must be based on the principle of co-existence and co-prosperity. The more Japan exports its goods the more it must buy industrial materials from abroad. Japan thus is contributing to the business

prosperity of the world. Dr. Weigemann, after pointing to Japan's business boom consequent upon export trade expansion, said in conclusion as follows :

"It is true such an ascent of business in Japan has had good effects upon the world economy, especially South Sea countries. Demand for materials in Japan has surely increased. Had not Japan's demand for wool increased, the market price would have been placed in a far lower position. Demand for other materials such as raw cotton, rubber, pig iron, etc. has also gained remarkably in Japan. Especially, Australian wool, Indian raw cotton and pig iron, British Malayan and Dutch East Indian rubber and gutta percha and American cotton have been greatly favored by Japanese industries."

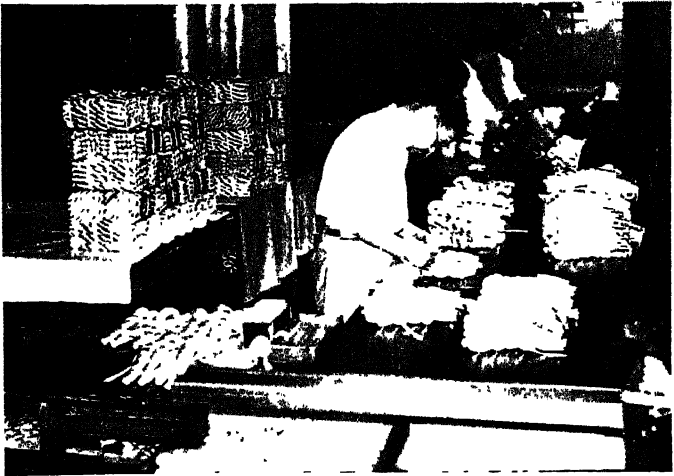
Japan has been a faithful apostle of the free trade principle for many years. In the face of high tariffs, quota systems and exchange control adopted by other countries, Japan is opening its doors to the rest of the world. Japan partially revised its tariff in 1931, but no thoroughgoing raise has been made so far. Except on only a small number of import articles, neither the quota system nor import restrictions has been introduced. The Trade Protection Bill passed by the Diet in 1933 gave the Government wide dictatorial authority on tariff policy and import restriction, but only once has the law been enforced that on Canadian imports. The law preventing the flight of capital abroad was enforced in July, 1932, and was replaced by the Exchange Control Law in May, 1933. Its object is to restrict exchange speculation and no restriction is made on exchange transactions for trade. In every sense, Japan can be called a country where the free trade policy is supreme. Japan does

not menace the interests of other countries by its export trade expansion. Barter trade is a world tendency. On this basis, the Indo-Japanese trade convention, aiming at the barter of Japanese cotton textiles and Indian raw cotton, was concluded in 1932. The Japanese-Dutch East Indian trade convention in 1934 failed to be concluded, but, thanks to mutual understanding of their own circumstances, Japan is restricting its exports voluntarily to the export volume of 1933, consenting to a proposal of the Dutch East Indian Government to limit the amount of Japanese goods handled in the Dutch colony to 25 per cent. Japan also concluded a barter trade agreement with Turkey in 1934. At the request of Central and South American countries, Japan plans to conclude barter treaties with them and necessary preparations are under way. In concert with the Government policy, steps also are being taken by private interests for trade readjustment. In 1934 the Japan-American Trade Council and Anglo-Japanese Trade Council were organized by traders in these countries. The Central and South American and African countries import more from us than they export to us. How active our exports to these new markets are may be noted from the fact that the names of small countries in those continents were not mentioned in the trade report of the Ministry of Finance for the year 1934, between January and October of which Panama, Guatemala, Honduras, Jamaica and Haiti in Central America imported from goods to the value of ¥15,600,000, Venezuela, Colombia and British Guinea in South America ¥8,700,000, Spanish and French Morocco, Nigeria and the Gold Coast in Africa ¥26,700,000, and Syria, the Palestine, and Iraq in the Near East ¥29,700,000.

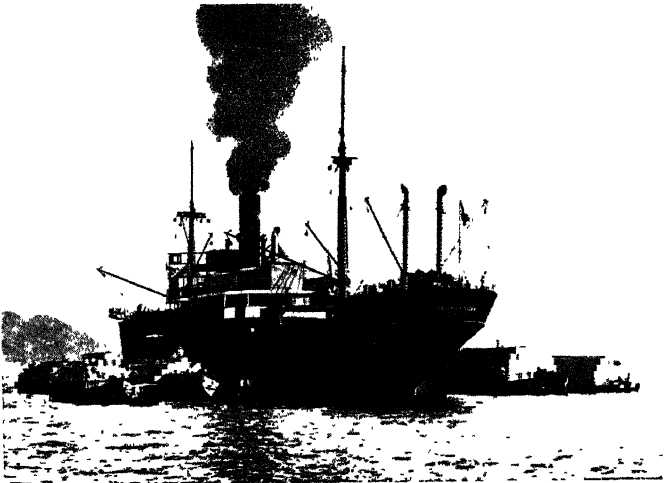
Even in our trade with the United States, which has resulted in a decline below 1934, the export of miscellaneous goods has been very active and, favored by the prevailing tendency in that country to use low-priced articles instead of high-priced ones, our goods have made great headway in the market there. It is a fact that leading department stores which used to sell high class European articles are today handling our products in order to meet the requirements of buyers generally. Further, at the general meeting of the All-America Toy Makers' Association recently held in New York, a resolution was passed by members of the Association, who are being overwhelmed by the inroads of Japan-made toys into the American market, for filing a petition with the Government for restricting such imports. These facts reflect the increasing and momentous development of our products in overseas countries. It is to be regretted that only seven out of the thirteen countries of Asia where Japan has a superior commercial position geographically, the trade with these countries accounting for approximately 50 per cent of all her foreign trade, buy from us more than they sell to us, and that, moreover, our exports to them have, it appears, ceased to grow of late years. In other words, while the advance in our export trade with the "new markets" is striking, our exports to the "old markets," namely, Asiatic countries, are gradually decreasing. The China market, which had been one of the principal outlets of our products for many years, was practically closed as the result of the continued enforcement of the anti-Japanese boycott brought about by untoward events between the two countries and since 1933 this country has been importing more from

China than it has been exporting there. In the Indo-Japanese trade, the gradual increase in our exports was suddenly arrested by the trade conference and Japan is now reduced to the state of an importing country. In the case of the Dutch East Indies which formerly imported more from us than she exported to us, Japan will, it is feared, be compelled to purchase a large quantity of her products as a consequence of the Japanese-Dutch Trade Conference. As regards the Trade Protection Law, the Japanese Government was compelled to enforce it on Canadian imports, such as wheat, starch, wood pulp, wrapping paper, match paper, machinery parts, lumber, wheat gulten, etc., in the summer of 1935. A statement of the Foreign Office incidental to the enforcement says Japan adheres firmly to the principle of free trade, avoiding measures likely to obstruct international trade, at the same time striving to contribute toward the promotion of human happiness by persuading the Powers concerned to reconsider their policies with a view to restoring international commerce to a normal condition. The measures provided are intended to induce reflection on the part of a country, which, notwithstanding the great profit it is deriving from the fair and liberal policy of the Japanese Government, is resorting to unjustifiable steps against imports from our country, and is unwilling to amend them in spite of repeated negotiations initiated by our Government until all reasonable means have been exhausted. In other words, the statement says, in order to protect our fundamental policy of free trade we have been compelled to adopt exceptional measures; they are not to be construed as a change in our trade policy. The statement runs in part as follows: "Under the

Anglo-Japanese Treaty of Commerce and Navigation by which Canada is bound, Japan and Canada must accord to each other the most-favored-nation treatment. "In spite of this fact, under the pretext of the fall in the exchange value of our currency, Canada has, in the imposition of ad valorem duties on all classes of Japanese goods, been determining the value of Japanese goods in terms of Canadian currency according to the legal value of exchange (¥100 to \$ 49.85) and making this the standard value for the imposition of tariffs. Not only this, but Canada has been levying on such Japanese goods as it deems of the same class or kind as those made in Canada, the so-called exchange dumping duty, which is equivalent to the difference between the converted value based on the legal exchange value, and the actual value according to the current exchange quotation (¥100 to about \$ 29). "While the Canadian laws provide for the application of the said converted value for the assessment of tariffs and of the exchange dumping duty on the products of all countries, about 20, whose currency has depreciated more than 5 per cent in exchange value as compared with Canadian currency, yet as a matter of fact the products of only five countries besides Japan are affected. Furthermore, as the trade of those five countries with Canada is not only negligible but involves an extremely small amount of goods upon which the exchange dumping duty is levied, it is, in effect, only Japanese commodities that are subjected to gravely disadvantageous treatment. "Moreover, while the Canadian Government is, under the pretext of safe-guarding home industry, fixing the standard value of many foreign commodities by category for the assessment of tariff, and



Testing of Skein Silk for Export



Japanese Tea Being Shipped Aboard a Steamer  
for Export





making that value a basis for the levying of general ad valorem duties, and is collecting as a special duty the difference between such fixed standard value and the actual value of the commodities, an inordinately high value has been set upon Japanese goods. According to the investigations of the Japanese industrialists concerned, the import price inclusive of duty and taxes of not a few Japanese commodities in Canada is more than double the factory price of Canadian goods of a similar class or kind. Moreover, this import price is said to be from three times to six or seven times the export price of those goods in Japan. Due to these circumstances, a decline has resulted in the export of these categories of Japanese merchandise, some of them actually decreasing to less than 10 per cent of their value a few years ago. In fact, many Japanese who long resided in Canada and engaged in Japanese-Canadian trade, have returned to this country, being virtually put out of business. "It is not the intention of our Government to ask for the establishment of an equilibrium of trade between Japan and Canada, although the balance has been unfavorable to us during recent years. All we ask is that for the sake of equity and fairness toward Japan, a good customer of Canada's, the Canadian Government should accord a really just treatment to our goods in a friendly spirit, as is the case with the United States of America, its neighbor, and with Australia, which, like Canada, belongs to the British Empire." In 1934 the Federation of British Industries sent to Japan and Manchoukuo its economic mission to see how industrial and trade conditions stand in these countries. A report submitted by Lord Barnaby, the head of the mission, to the Federation was very favorable to

Japan and Manchoukuo. An American Economic Mission, headed by Mr. W. Cameron Forbes, also visited Japan in May, 1935, to see how to enlarge a sphere of advantageous trade on the Pacific. The Mission also visited China and the Philippines for economic investigation. The Forbes mission thoroughly studied the reason why Japanese goods, which are cheap and good, are demanded heavily in all parts of the world, in spite of preventive steps against them by many foreign countries.

As was already pointed out, the fundamental principle of Japan on her foreign trade is based on the policy, giving free reign to the general tendency. Tariff policy of this country reveals this. Anything that may excluded the importation of foreign goods is carefully avoided throughout the tariff. There was, of course, a day when Japan, still in her industrial infancy, used protective tariff to a fairly wide extent, in order to help promote home industry, but as the process of manufacturing improved steadily, the tariff of that nature was either abolished or gradually reduced. Regarding the leading products imported into Japan, it may be said without exaggeration that almost no duty aiming at home industry protection is imposed on them. There are, however, a few exceptions. Among the numerous articles coming from abroad, there are certain products on which high tariffs are imposed. Besides, due to the system of import permission, there are some other goods the import of which is virtually impossible. These cases, however, are merely on account of political reasons at home, not because of Japan's desire for domestic industry protection. As an outstanding example of the goods on which

special high tariffs are applied, in order to check their inflow, there are articles on which a luxury import duty is imposed. A tariff of 100 per cent ad valorem is levied simultaneously on all products coming under this classification. This luxury import duty was effected in 1924 by Finance Minister Hamaguchi in the Kato Cabinet. Japan at that time was suffering heavily from the damage caused by the great Kwantō earthquake and fire of 1923, particularly from the enormous excess of import. Government was determined to attain a balance of the export and import on the one hand and to re-establish the State's financial equilibrium on the other. The ministry prepared a list of "luxurious goods" from abroad, which could reasonably be excluded from the products in daily use and for which substitutes could be found among the home made products. The 100 per cent ad valorem import duty was imposed on the goods of this new division. A partial revision of this system took place later. For example, there were cheese and black tea, which may be luxuries to the Japanese, but are not so to the foreign residents. There were also sports goods for golf and other games. If these are difficult to import, it would be counter to the wish of the government to encourage athletic activities of the nation, the government thought. Although the above-mentioned articles were exempted from the luxury import duty by the revisions, this special duty itself continues to exist to this day. That the duty is not intended as a so-called protective tariff, however, is clearly shown by the motive and the kinds of articles on the list. Next comes the system of import permission. A representative foreign product the import of which is practically banned

is foreign rice. Rice, being the main food of the Japanese people, decidedly heads the list of the country's agricultural products. The amount of the rice crop and the price of rice are a vital question for farmers, who constitute as much as 70 per cent of the whole Japanese population. In recent years, bumper crops have been seen year after year, although 1934 witnessed a considerably small crop, in addition to the remarkable increase of output in Korea and Formosa. The rice price has slumped to such an extent that it does not even cover the production cost. The farm depression has become a serious social problem. The government has therefore found it necessary to prohibit the import of foreign rice. The step may suggest protectionism, but the object is to raise the rice price, an imperative need. In other words, it is but a temporary emergency measure. Summarizing the foregoing, it is logically true that Japan, save in the few above-mentioned cases, is consistently working for the "liberty of trading" principle, standing part in the sweeping world-wide tendency for building high walls of protective tariffs against others' products. Why, then, does Japan insist on the "liberty of trading" and endeavor for the execution and maintenance of that principle? Briefly, Japan's industrial circumstance necessitates it. Japan is small in area and is not rich in raw material. In order to assure her sound economic existence, Japan must import raw material and export finished goods on the so-called industrial trade basis. This fact becomes self-evident on glancing over Japan's import and export lists. Here are the contents of the 1933 import and export :

	(Unit, ¥1,000)	
	Import	Export
Foodstuffs .....	173,185	157,988
Raw material.....	1,181,146	73,765
Crude products.....	328,799	538,793
Finished goods .....	220,328	1,031,576
Miscellaneous.....	13,762	58,924
Total .....	1,917,220	1,861,046

This table shows that of the imports reaching about ¥1,900,000,000, raw material amounted to more than ¥1,180,000,000 and half-finished goods (crude products) to be used as material to well over ¥320,000,000, the total being ¥1,500,000,000, which figure is as much as some 80 per cent of the whole import. The finished goods import reaches only slightly more than 10 per cent. On the other hand, concerning the exports, finished goods amount to ¥1,000,000,000, or about 60 per cent of the whole exports aggregating more than ¥1,800,000,000, which combined with the half-finished goods for material (mainly raw silk) of ¥530,000,000, reaches approximately 80 per cent of the whole export. The 1933 trade of Japan showed an increase of about 40 per cent, both in import and export, as compared with that of the previous year. The world marveled at the economic activities of Japan then, but still Japan had to import a gigantic amount of raw material and half-finished goods for material, and this, in spite of the striking export increase, resulted in an excess of import by ¥56,000,000. Such are the circumstances in which Japan finds herself. Accordingly, viewed from the economic standpoint, an exclusion policy such as protectionism, which is highly harmful to the development of trade, is the last step for Japan to take. Japan herself is showing an example of

the "liberty of trading" principle to the rest of the world. It is certain that the manifestation of this spirit will not merely benefit Japan herself but will also go a long way toward conquering the world economic troubles. With all that enthusiasm of Japan, it will be difficult to attain the end desired, if the campaign is not supported by others. Unfortunately, the economic environment of Japan has failed to change in her favor. Obstacle after obstacle has appeared until Japan, though sectionally, has been forced to revise part of her import and export regulations. The first step was the enforcement of the export control, and the second a challenge to the imports from certain countries. The export regulation system in Japan dates back to 1931 when the main industry control act was promulgated. This early regulation was the result of the government's being influenced by the industry rationalization craze then dominating the world, with Germany as its center. In brief, the act's purpose was the recognition of the systematization, of enterprises and the development of the cartel plan, at times using the government's authority to accelerate such development, at the same time effectively removing the harmful features of monopolization. The following were the branches of industry included in the main industry control act when it went into force :

Cotton yarn industry.

Silk yarn industry.

Rayon industry.

Carbide industry.

Bleaching powder industry.

Sulphuric acid industry.

Oxygen industry.

Hard oil industry.  
Portland cement industry.  
Alloy iron industry.  
Wire industry.  
Foreign paper industry.  
Cardboard (5 ounces upward) industry.  
Flour industry.  
Pig iron industry.  
Bar steel industry.  
Steel industry.  
Steel plate industry.  
Copper and brass working industry.  
Sugar refining industry.  
Benzine industry, (manufacture and sale).

Thus began industry control in Japan. Here is a fact worth noting: every one of the industries on the list is a basic enterprise in Japan, both in scale and function. How enthusiastically the new system was welcomed by various Japanese capitalists was shown when they launched vigorous movements to induce the government to apply the act to their own lines of business. In the meantime, producers made a control agreement, covering the following cases, regarding which they pledged themselves to report the details to the government:

1. Agreement on production regulation or curtailment.
2. Agreement on the division of production.
3. Agreement on allotment of orders.
4. Agreement concerning the conditions of transactions that may affect sale prices, etc.
5. Agreement on the field of marketing.
6. Agreement on the quantity of sales.
7. Agreement on joint sales.



Aside from this control group, there are cases in which individual cartels are now freely carrying out control among themselves. Principal among them are :

1. Export control.
2. Joint purchase of material.
3. Production equipment control.
4. Unification of products conditioning.

Such control, however, is effected within the limit of the control act with the government's permission. In addition, there is industry control by direct government supervision, which uses many kinds of methods over a wide field. Chief among those having a bearing on trade are :

#### Direct government Inspection

The government has encouraged producers to organize industrial associations and has empowered them to examine the quality of their products, in order to promote Japan's key industries and trade and to prevent over-production. But as to the important exports of certain kinds, the government itself makes a quality examination in accordance with other acts, such as the export raw silk conditioning act, export silk textiles control act, leading exports control act, export marine product control act, and export raw silk sale control act. The last two mentioned were promulgated in 1934.

#### To Stop Illegal Competition

Japan formerly lacked an independent law regarding the prevention of illegal competitions. Only indirect control was possible through various regulations. In 1930, about the time of the lifting of the gold ban, the depression

of national economics and of industry gave rise to unfair competition, which spread like a prairie fire. The need of a powerful law to stop this was keenly felt and the government began serious efforts toward drafting a new act. As a result, two laws, one for checking illegal competition and the other regarding trade marks (being related to the international industry proprietorship alliance treaty) appeared in 1934.

### Prevention of Dumping

The flood of unconsumed goods resulting from the excessive production after the World War drove the countries of the world to start dumping abroad. Each nation found it necessary to protect itself by means of either higher tariffs or anti-dumping laws, Japan also was forced to take counter-measures and in 1919 added a clause on dumping prevention to the tariff law. Several revisions have been made since then.

1. In case an article is imported or sold at a price lower than the amount of the wholesale price at its place of origin plus freightage, insurance charges, commissions, and other expense en route, thus affecting the home industry, the Commerce Minister shall convene the dumping inquiry committee.
2. Persons who are affected by dumping may request the Commerce Minister to order an inquiry by the committee.
3. As a speedy and convenient step for investigating suspected cases of dumping, the Commerce Minister is authorized directly to order the customs officials to make the necessary inquiry concerning the

import of unreasonably cheap articles or the dumping of imported goods.

Cases were not few in the past in which investigations were made concerning imported goods, but there has been no actual application of the anti-dumping law in Japan so far. Especially noteworthy are the export control and price control adopted as counter-measures against the foreign oppression of Japanese goods, the rapid strides of which in the overseas market have made Western competitors gasp. These forms of control are voluntarily effected by the industrial associations concerned. The association of the Japanese cotton textile exporters to India is a recent example. Following the Simla and New Delhi cotton conferences, a fairly heavy restriction was made on Japanese cotton goods and rayon textiles. Simultaneous with the decision, the Japanese cotton textile men interested in India organized the association of exporters to that country, drafting their own control rules and establishing export quantity allotment and various forms of control. Regarding the general cotton cloth for export, there is also cartel called the Japan Cotton Textile Federation, the regulations of which are :

1. Demand-supply control by quantity.
2. Carrying out of agreements with clients.
3. Agreements on price and partial suspension of dyeing operations in case improvements are required, due to the conditions in market or in transactions.

With such rules, the federation controls the export of cotton cloth. The trade control in Japan is thus on the whole entrusted to voluntary action by the industrialists, but here mention must be made of the law pertaining to the regulation of trade and the protection of commerce,

which passed the Diet in the spring of 1934 and became effective on May 1 of the same year.

#### **e. Trade Regulation and Commerce**

This law remains effective for three years from the date of its going into force. It is made up of five articles. From Article 2 onward, the limits of the law's application and the punishment it may inflict are stipulated. The substance of the law is in its opening section, which says :

"Article 1. The government, whenever it considers it specially necessary so to do for the purpose of adjusting trade or safeguarding commerce in answer to the measures that have been or are to be taken by foreign countries, may, in accordance with the provisions of the Imperial ordinance and with the approval of the tariff investigation committee, in respect to specified articles, and during a specified period of time, impose on such articles, in addition to the import duties enumerated in the import tariff annexed to the customs tariff law, import duties not exceeding in amount their value ; or reduce, or exempt them from import duties or prohibit or restrict the exportation or importation thereof."

The aim with which the government prepared the law was to urge other countries to reconsider and to mitigate the anti-Japanese goods drive abroad. It is, in nature, passive. This law, together with the gold reserve law (for the abolition of payment by gold shipments) which was simultaneously promulgated, and the exchange control law (intended for regulating trade by making reports on the import and export exchange compulsory), aims at maintaining the balance of Japan's international payments.

## **Transportation in Japan**

- a. Railways
- b. Automobile Transportation
- c. Forwarding Business
- d. Shipping
- e. Aviation in Japan

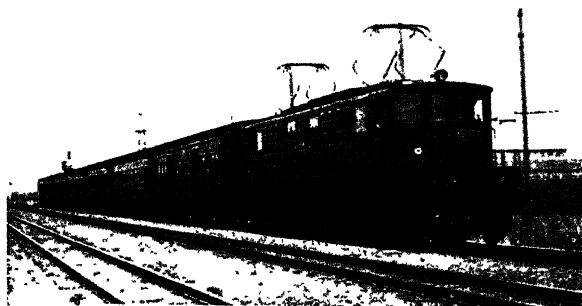
### **a. Railways**

The Japanese railways have a brief history of development of only a little more than three score years. However, the rapidity and extent of development are really wonderful, having no parallel in other countries in these respects. It was in 1872 that the first railway was built in Japan, an 18-mile line between Tokyo and Yokohama, a single track. This was a revolutionary event for transportation in Japan. On the day when the line was opened to traffic the Emperor Meiji attended the opening ceremony. The 18-mile railway line is in striking contrast to the present 47,500 kilometer railway mileage. Of course, the railway equipment then was so poor that its comparison to the present status is not justifiable. Government ownership has been mainly responsible for this progress. The Japanese Government at first established the Imperial Government Railway Board in the Ministry of Communications and at the same time has been encouraging the development of private railways, subsidizing them yearly. Both the Government and private interests have co-operated in the development of the railways. The Railway Board has now become the Railway Ministry with the total mileage of 40,260

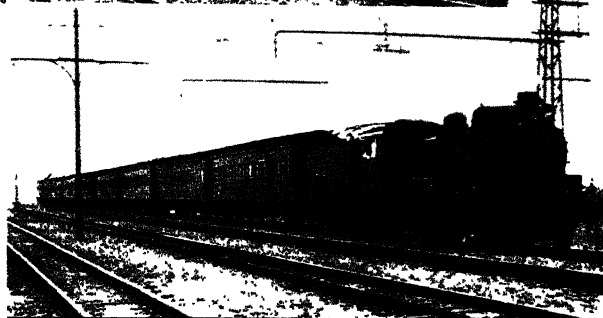
(1)



(2)



(3)



- (1) High Speed and Latest Type Streamline Locomotive  
(2) High Tension Electric Locomotive  
(3) Super-speed Express Train "Tsubame"



kilometers, while that of the private railways is only 7,242 kilometers. In view of the rapid expansion of privately-owned railway lines throughout the country, the Railway Nationalization Law was put into force in 1906, and the main arteries of traffic were turned over to Government management. The trunk railway lines consisted of the Tokaido Line between Tokyo, Osaka and Kobe; the Sanyo Line between Kobe and Shimonoseki; and the Tohoku Main Line between Ueno and Aomori. These three most important lines traverse the main island of Japan. There are 22 other main lines. They are the Hokuriku line, Chuo line, Sanin line, Kwansai line, Ou line, Uetsu line, Shinetsu line, Sobu line, Yosan line, Tokushima line, Kagoshima line, Nagasaki line, Hoki line, Aho line, Chikuho line, Hakodate line, Muroran line, Rumoe line, Nemuro line, Soya line, Meiyo line and Abashiri line. From these 22 mains lines run 160 branch lines, forming a complete railway network. The total investment in the State railways is more than ¥3,500,000,000. Passengers carried by the State Railways for 1934 were 883,309,000 and freight totaled 74,934,000 metric tons. The passenger income for 1934 amounted to ¥275,791,000 and the freight receipts were ¥208,689,000, with a total of ¥484,482,000. The total railway receipts since 1927 have ranged from ¥408,093,000 to ¥506,023,000 a year. By the Railway Special Account Law, enforced since 1909, the budget of the State Railways was made separate from the general finances of the State. Furthermore, the law provides that all capital expenditures for railway construction and improvement shall be met from revenue, and in case this is not sufficient, it is to be supplemented by public loans issued



as a charge on this special account. The development of private railways Japan owes a great deal to the State Railways for they have developed under Government subsidization. The present private trackage of 7,242 kilometers in Japan does not indicate the extent of private railway construction. Most of the branch lines of the State Railways were built by private railway companies and were later purchased by the Government. Therefore, it can also be said that the State Railways owe a great deal to private railways. Capital invested in the private railways totals ¥1,360,000,000. Electrification also was initiated by private railways. Tokyo and Osaka have subways. Before the railway nationalization took place the most notable private railways were the Nippon Railway, the Sanyo Railway, the Kyushu Railway and the Hokkaido Colliery Railway. The total length of line thus built by private capital in 10 years between 1881 and 1891 aggregated 1,874 kilometers, a length more than double that of the State lines which did not exceed 886 kilometers by the end of 1891.

#### **b. Automobile Transportation**

It was in February, 1900 that first electric automobile was brought to Japan, as Count Hirokichi Mutsu, then Consul in San Francisco, presented it to His Imperial Highness the Crown Prince in commemoration of the latter's marriage. Automobiles were sold for the first time in 1903 by a firm named Motor Shokai on the Ginza, Tokyo. Japan at present has 66,7000 passenger cars and 40,000 motor trucks. The development of motor truck transport has dealt a hard blow to the transportation of freight by State and private railways.

Rapid increase of passenger cars has also hit railway transportation hard. Provincial railways especially have been hard hit by the development of motor car transportation. The number of passenger cars in Tokyo is 26,000, in Osaka 8,000, in Kanagawa 5,000, in Aichi 4,900, in Hyogo 4,000 and in Kyoto 3,600. The great earthquake and fire which destroyed Tokyo and Yokohama in 1923 brought about a great demand for motor cars because rail traffic was interrupted at various places and the help of motor cars was badly needed. In 1924, the number increased to 40,070, of which 27,959 were passenger cars and 12,097 were trucks. The rapid development of motor car transport has thus driven rikshas, electric cars and provincial railways into the background. Motor car passengers are increasing yearly, while railway receipts on provincial railways are rapidly falling. So far, except in the vicinity of large cities, Japan has not been blessed with good motor roads, but the construction of first-class highways is being pushed ahead in various parts of the country and traffic is bound to make a phenomenal increase as the roads are completed.

### **c. Forwarding Business**

Forwarding business is closely connected with railways. While railway freight rates are comparatively cheap in Japan, the transportation charges from railway stations to shops and private houses are very high. This forms one cause of high prices in Japan. That the rates are so high is due to the fact that there are too many forwarding agents in this country. They spend money for competition, but do not introduce rationalization of management.

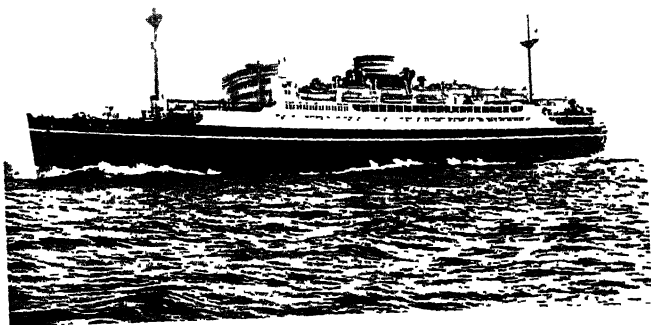
There was a time when the railway freight stations at Shimbashi and Akihabara in Tokyo each had nearly 50 small forwarding agents handling goods between the station and shops, in constant competition. Throughout Japan such agents numbered 5,500 at the end of 1927. The Ministry of Railways caused these agents to effect an amalgamation. As the result, the Kokusai Transport Company, Ltd. was founded. This company established branches or agencies at all railway stations. Forwarding has been undertaken by the Ministry of Railways itself and the company has been entrusted with this business on contract since then.

#### **d. Shipping**

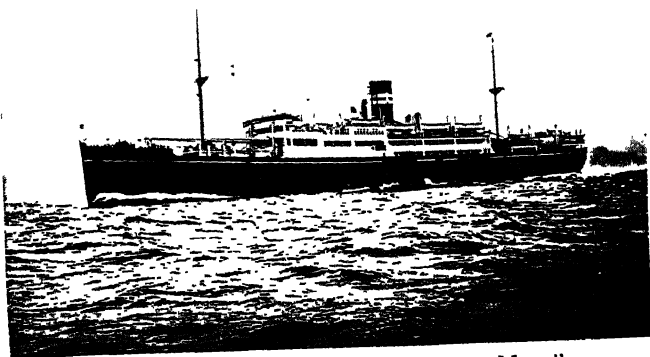
Shipping heralded the industrial development of Japan. This and spinning were the first two industries to be placed under the capitalistic management in this country. It is natural that shipping has realized a great development, as Japan is a sea-girt country. The position of shipping in Japan's national economy is also very important. It is playing a great part on the country's international payments. Japan's visible foreign trade balance has been featured with a yearly excess of imports over exports since the termination of the World War, but the adverse balance is offset by the invisible trade balance which is in favor of receipts. Shipping income is the most important item of the invisible trade. It reaches more than ¥120,000,000 a year. This is an invisible export, ranking in importance next to raw silk, cotton textiles, and silk textiles. The history of the development of Japanese shipping is described here. The enforcement of the National Seclusion Act by the Tokugawa Shogunate in

the middle of the 17th century abruptly put an end to the shipping trade of Japan which had been well on the way to development. From that time to the beginning of the 19th century, Japan's seaborne commerce was non-existent, but, with the growth of communications between Japan and Occidental countries, the Shogunate removed the restrictions placed on shipbuilding and navigation and built vessels of European style, an example eagerly followed by various powerful clans. Thus, our shipping gradually came into being, during the period from the abolition of the act prohibiting the building of large-sized vessels in 1853 to 1868, ships of European style newly built or purchased from foreign owners numbered 138; 44 owned by the Shogunate and 94 by the different clans. Of these, one steamer and 20 sailing ships were built in Japan. The shipping development of this country can be divided into four periods; namely, the first period from early in the Meiji Era to the Sino-Japanese War, the second period from this War to the Russo-Japanese War, the third period from the end of this War to the World War, and the fourth period from the termination of the World War to the present. When the ships owned by the Shogunate and the clans were transferred to the Imperial Government after the Meiji Restoration, they were sold to private ship-owners, but, as many of these ships were badly built, and, moreover, as sufficient capital was not available, several shipping enterprises then launched, ended in failure and were discontinued in 1876. On the other hand, maritime transportation by steamships was developed by degrees under Government protection and although some companies that operated old ships eventually found it

difficult to continue business, the Mitsubishi Steamship Company managed by Mr. Yataro Iwasaki, founder of the Mitsubishi interests, continued to prosper, and its foundations were fully consolidated with the conclusion of mail contracts with the Government in 1875. In the war of the Saga Rebellion that broke out later and in the Formosan campaign in 1876 and the war of the Satsuma Rebellion in 1877, the company was actively engaged in carrying troops and munitions for the Government and greatly contributed to the successful operations of the Government forces so that, in return for its admirable services, the authorities granted a bounty to the company. Mr. Iwasaki became the foremost shipping magnate of this country and the Mitsubishi Company not only monopolized the coasting trade of Japan but steadily extended its shipping operations to Chinese and Korean ports. The Kyodo Unyu Kabushiki Kaisha, or Joint Transport Co., was established by capitalists who were opposed to the Mitsubishi interests in 1882. This led to strenuous competition between the two companies, each of which was determined to overcome the other by any means. In due time, the conflict between the two became so intense that, if left as it was, it seemed likely that the collapse of both companies could be the only outcome. Confronted with such a situation, the Government intervened and ordered them to come to a compromise. A compromise in name only was effected between the two companies, and their competition continued with no sign of abatement till finally the Government ordered them to combine. The two competitors utterly exhausted from the long-continued struggle and literally tottering to their downfall, were only



N. Y. K. Trans-Pacific Luxury Passenger Boat  
"Chichibu Maru"



O. S. K. Passenger Boat "Rio de Janeiro Maru"  
on the South American Service



too glad to obey the order and, in September, 1885, a new company, the nucleus of the present Nippon Yusen Kaisha, was established with a capital of ¥11,000,000. At the time of the amalgamation of the Mitsubishi and Kyodo Steamship companies, the ships in their possession numbered 69 of some 73,000 tons, and they were engaged in steamship and sailing ship services in 18 lines, which were mostly coastal. Overseas lines were between Yokohama and Shanghai, Nagasaki, Vladivostok, Kobe and Jinsen (Chemulpo, Korea). In 1893, Nippon Yusen inaugurated a Bombay line. In 1890, due to general economic depression, the company reduced its capital, but, during the war with China, its business was considerably extended in scope. At that time, there was also the Osaka Shosen Kaisha, established in 1885, the shipping department of the Mitsui Bussan Kaisha, the Kishimoto Steamship Company and several other shipping companies in the country, but they were still insignificant in point of the size of their fleets as well as their financial resources, and all steamship services between Japan and Europe and America were in the hands of foreign shipping companies. The Sino-Japanese War gave a great impetus to the development of our shipping trade. On the outbreak of hostilities, all Japanese ships were commandeered by the Government, and their number was speedily increased after the close of the war, attended by an increase in the capital of the various steamship companies. Shortly after the war was over, Nippon Yusen started its European, American and Australian lines under great difficulties, while the Osaka Shosen Kaisha inaugurated a service between Japan and Formosa in 1896 and a line between Japan and Yangtze



ports. This was partly due to the necessity of operating vessels which had been added to their fleet during the war, but mainly to the enforcement of the Navigation Encouragement Law. In consonance with public opinion, the Government enforced this law as well as the Shipbuilding Encouragement Law. At this time the Toyo Kisen Kaisha, which played a conspicuous part in the development of our shipping trade until about a decade ago was established to engage in three independent services in the Pacific. During ten years from the close of the Sino-Japanese War to the outbreak of the Russo-Japanese War, Japan's shipping trade became an important factor in international shipping circles, and, so compared with that of the preceding decade, its development was astounding. In the number of steamships alone, the figures for both ten-year periods show a striking contrast, 528 of 330,000 tons in 1895 increasing to 1,390 of 930,000 tons in 1905. The war with Russia marked a new epoch in the history of the development of Japanese merchant shipping. Immediately after the war broke out, the vessels of the different Japanese shipping companies were commandeered by the Government and were actively engaged in the transportation of troops, munitions of war, provisions, etc. Under such conditions, it was in the order of things that our merchant marine suffered from deflation. Most of the ocean services were suspended, while the carrying capacity in the coasting services declined to a considerable extent, and, in order to make up the deficiency, many ships were chartered or purchased from abroad or newly constructed. As a result, whereas steamships and sailing-ships of Japanese registry at the end of 1903, or prior to the

outbreak of the war, numbered 4,602 of 979,000 tons, they rose to 5,089 of 1,262,000 tons at the end of 1905, an increase of 487 of approximately 280,000 tons. This rapid and large gain in the number of steamships naturally brought about a surplus in bottoms, a keen competition between our shipping companies and a sharp drop in freight rates. For a time, Japan's shipping circles were in the grip of serious depression, but, when the Government granted bounties to the shipping companies under the Navigation Encouragement Law by way of bolstering up the shipping trade, our ships began to be operated on the line to the west coast of South America, the San Francisco and Tacoma lines, the Calcutta line, the Bombay line, the Chosen line, the lines to Chinese ports, and the Java line. To keep pace with this development, the Government revised the Navigation Encouragement Law and published and enforced the Ocean Service Subsidization Law in 1909. The Great War that broke out in 1914 gave a unique opportunity for the development of the Japanese merchant marine. The loss of a large number of ships and the great scarcity of bottoms available for the transportation of troops, munitions, provisions and what not during the war upset the equilibrium between the supply and demand of bottoms. In such circumstances, charter rates and the price of ships went sky high in the world's shipping market. For instance, the freight rate on coal between Moji and Yokohama, which was made the standard of freight rates in our coasting trade, was quoted at ¥0.76 per ton on an average before the war, but rose to ¥11.17 per ton on an average in June, 1918, the highest for that year being ¥11.70; while the freight rate on flour and

cereals between Japan and London that had ruled at about 40 shillings per ton before the war mounted to 1,000 shillings in June and July, 1918. The price of ships and charter rates also rose correspondingly. Before the war, the price of large-sized cargo ships averaged some ¥80 per ton, but it reached the record figure of ¥950 per ton in August, 1918, and it is said that a number of ships changed hands at over ¥1,000 per ton. In such an unexampled boom in the shipping market, leading shipowners such as the N.Y.K., T.K.K., and O.S.K., and also those shipowners who had been operating their vessels on irregular routes did their utmost to build ships and extend or open new services until Japanese ships were found in almost all parts of the world. On the other hand, ships chartered or sold to foreign governments by our shipowners were registered at a considerable number. Thus, Japan's shipping experienced phenomenal prosperity. Particularly, the half-year period between May or thereabouts in the year 1918 and November of that year, when the Armistice was proclaimed, will go down in the history of Japanese shipping as the time of unprecedented activity. During the five years of the war, receipts of Japanese shipowners from freight and charter charges totalled something like ¥3,200,000,000. Moreover, some ¥200,000,000 was paid to them by foreign governments and shipowners for 195 ships sold during those years. In these circumstances, both companies and individuals occupied in the shipping trade were able to realize enormous profits and so a new name, "shipping nouveau riches," became popular. The different shipping companies repeatedly increased their capital. While, in the first half of

1915, the combined paid-up capital of the Nippon Yusen Kaisha, Osaka Shosen Kaisha, Toyo Kisen Kaisha, Nisshin Kisen Kaisha and Chosen Yusen Kaisha stood at ¥59,000,000, it rose to ¥96,000,000 in the corresponding period of 1918 and further to ¥156,000,000 in the latter half of 1920. The percentage of profit to the paid-up capital correspondingly increased, 47.5 per cent in the first-half of 1915 rising to 119 per cent in the latter half of 1918, while the rate of dividend rose from 11.4 per cent to 52 per cent during the same period. With the proclamation of the Armistice in November, 1918, however, the world's shipping entered upon a period of reactionary inactivity which became more pronounced upon the restoration of peace as the result of the signing of the peace treaty in July of the following year. With the cessation of hostilities, freight and charter rates precipitately fell and idle ships fast increased in number. The Japanese shipping world was affected by the universal depression and relapsed into the condition of serious inactivity that had been experienced before the war. In order to relieve the difficulty of shipowners other than the N.Y.K., O.S.K., T.K.K., and a few others, the Government caused six shipping companies, namely, the Kawasaki, Teikoku, Yamashita, Hashimoto, Uchida and Nippon steamship companies and the shipping departments of the Kawasaki, Asano and Ishikawajima Dockyard interests to combine into the Kokusai Kisen Kaisha. The Toyo Kisen Kaisha, finding it difficult to carry on business independently, was eventually merged with Nippon Yusen. For many years the Japanese shipping business remained in depression as well as that of the rest of the world, with no signs of

revival until the replacement of the gold embargo in 1931 and the consequent drop of the yen exchange rate caused shipping to revive suddenly and companies to resume declaration of dividends. However, a small dividend rate of 5 per cent or so was in striking contrast to the days when Nippon Yusen declared a 100 per cent annual dividend during the world war.

Japan is the third greatest shipping country of the world, coming second to Great Britain and the United States. At the end of 1929 the total gross tonnage of mercantile marine ships in Japan was 4,080,000. Of all enterprises that have been undertaken in this country since the Meiji Restoration, none have been more successful than shipping. The three wars which Japan went through were instrumental in bringing about the present prosperity. Government encouragement also must not be lost sight of. Although the third largest shipping country, Japan is not a good third. The two leaders, Great Britain and the United States, have about 22,000,000 tons and 13,000,000 tons respectively. Moreover, the quality of their ships is far superior to that of Japanese ships, which are old. There much room for improvement of the international position of Japanese shipping. At the end of July, 1934, Japan had 3,792 vessels with an aggregate gross tonnage of 4,086,163. There are 16 shipowners having more than 30,000 tons gross each in Japan. The Nippon Yusen Kaisha and Osaka Shosen Kaisha combined own more than a quarter of the total shipping tonnage. Japan's four largest steamship companies are :

Companies	Capitalization	Gross tonnage of ships in possession
Nippon Yusen Kaisha	¥106,250,000	612,798,000
Osaka Shosen Kaisha	100,000,000	462,878,000
Kokusai Kisen Kaisha	80,000,000	303,445,000
Kinkai Yusen Kaisha	10,000,000	122,373,000

Nippon Yusen and Osaka Shosen mostly operate trans-ocean services and Kinkai Yusen coastal services. These companies have already resumed their dividend rates, but Kokusai Kisen has not yet done so. Japan is the only shipping country of the Orient in a strict sense. Goods transported consist mainly of coal, lumber, bean cake, sugar, rice, wheat, raw cotton, salt and mineral ores. Coal is carried all the year round from the Hokkaido, Kyushu and Dairen to coast ports. Lumber is transported from Saghalien, the Hokkaido and the American Pacific coast to Japanese ports. Bean cake comes from Manchuria, sugar from Formosa, wheat from America and Australia, phosphatic ores from Malaya, raw cotton from British India and the United States, ferro ores from China, nitrate of soda from Chile, petroleum products from the United States and fruits from Formosa. Many ships are needed for the transportation of marine products from Kamchatka to Europe and America during the summer season. During six months from the middle of May to the middle of November each year the shipping business is very active. Many ships share in the transportation of Saghalien lumber and Kamchatka marine products. During the rest of the year the shipping business is rather dull, although the shipments of Manchurian beans and bean cake and Kyushu coal increase more or less. Moreover, North China and North

Korean ports are closed by ice, and consequently, the shipping business is generally dormant. The constant protection extended by the Government has greatly assisted the development of Japanese shipping. The protection and encouragement from early in the Meiji Era to the Sino-Japanese War were mostly for steamship companies or shipowners, but since 1895 the policy has been changed to assist shipping services themselves. The present Government subsidy to services is divided into three classes, subsidy to ocean-going routes, that to regular mail routes and that to regular nearsea routes. In line with this policy, the Government has adopted a shipbuilding encouragement program in connection with the improvement of ship quality. The acquisition of 200,000 tons of modernly-equipped freighters in exchange for the scrapping of 400,000 tons of old ships is the object. For this purpose, the Government gives a subsidy of ¥48 to ¥54 per ton of new ships. The first period program was completed in March, 1935, with good results. The second period program is a smaller-scaled and is now under way. The Government is giving a subsidy of ¥30 per ton gross for new ships totaling 50,000 tons. The importation of foreign ships into Japan is on a license system and an import duty is charged for the protection of the domestic shipbuilding industry.

#### **e. Aviation in Japan**

Within only about 30 years past the air navigation of the world has undergone a signal development. The visit of the Italian aerial flotilla to the United States, the round-the-world flight of the Graf Zeppelin, the great air race between London and Australia, the visit of Colonel

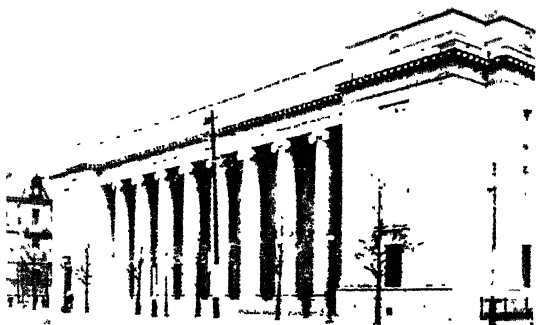
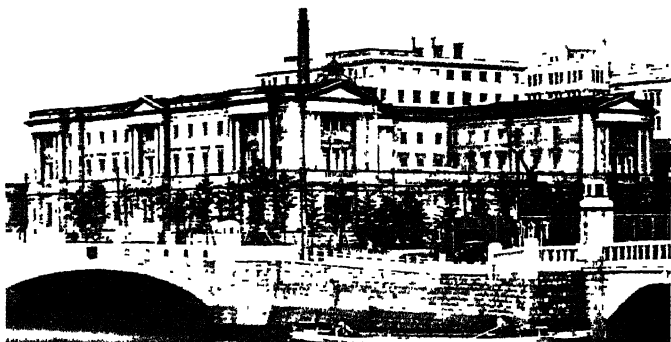
Charles A. Lindbergh to the Orient were great events in world aviation that took place only a few years ago. Aviation was started by the Wright brothers of America in 1903, but no one dreamed then that it would realize such a wonderful development. But, in terms of the future development, the present will be insignificant. Civilian aviation in Japan is very limited compared with that in advanced foreign countries. There are 9,284 civilian planes in the United States, 13,960 pilots and 2,071 air fields, while Britain, France, and Germany have each more than 1,000 planes, with several thousand pilots, and each more than 100 air fields. There are only about 152 civilian planes in Japan with 589 pilots and 19 air fields. In the United States air routes for the transport of mail and passengers total 89,554 kilometers, and those in Germany 47,088 kilometers. Japan's air routes cover only 3,751 kilometers. There are several causes for the backwardness of civilian aviation in this country. One cause is the remoteness of Japan from countries where material civilization has reached its highest development. Another is the slowness with which this country took up aviation. Another, and probably the most important, is that the Japanese are not sufficiently air-minded. Of late there has been an increase in the interest shown by the Government and people in the question of promoting aviation. In the Diet session of 1935 a resolution was adopted calling on the Government to establish commercial aviation on a firm footing. For some time there has been a commission on the promotion of civil aviation in the Communications Ministry and that body has reached final decisions on matters relating to the establishment of an air policy. The Ministry of



Railways has been showing equal interest in the promotion of commercial aviation. Early in 1935 a committee of inquiry into the air services was established in the Ministry, whose authorities are now contemplating an extension of the existing flying services and the opening of new air routes through this committee. A decision has been reached that the Government should be asked to increase subsidies to civilian flying and that there should be reforms in the organization of the Aviation Bureau. In view of the aims with which the Aviation Association was created, it is up to the Government to see that the foundations of the association are strengthened. Indeed, the encouragement of the work of the association should be part of any aviation policy formulated by the Government. The association has been handicapped in its work by the paucity of funds available, and there is no greater need at the moment than for the Government to give the association increased subsidies. There are few governments in the world which are as chary of subsidizing aviation as ours. During the nine years previous to 1933 the Japanese Government spent ¥16,000,000 on civil aviation. This contrasts with ¥384,000,000 expended by the United States for the same purpose in the same period, and with ¥245,000,000 expended by Germany, and ¥159,000,000 by France. In 1934 Japan spent ¥1,123,000 for civilian aviation purposes, Germany ¥152,000,000, the United States ¥63,000,000, and France ¥36,000,000. In view of all this, there is no reason to be surprised at the backwardness of aviation in this country. Planes for carrying mail and passengers contribute a great deal toward national development in peace time. In time of emergency then can be put to

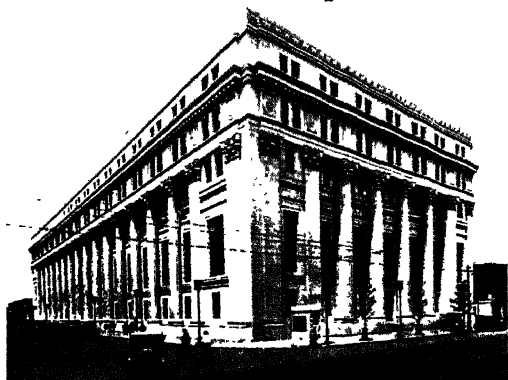
war service. The United States, Britain, France, Germany, and the Soviet Union are establishing international air routes connecting these countries with the Far East. We can imagine the advantage accruing to countries operating services to the Far East in an emergency involving these countries in this part of the world. We earnestly hope for the speedy establishment of the Government's commercial aviation policy. Civil aviation in Europe and America first developed commercially and then came under government supervision. In Japan, however, civil aviation developed in line with military aviation and was then turned over to private interests for commercial purposes. Because of these circumstances, commercial aviation in Japan is very much handicapped, compared with that of other countries. Civil aviation is inseparably related to military aviation. Its development not only contributes a great deal to cultural promotion, but has an important bearing on military strategy. Alive to the importance of this, the Communications Ministry founded the Aviation Enterprise Investigation Commission and in co-operation with the army and navy has drafted a concrete plan regarding the establishment of a national policy for private aviation. The plan provides for a 10-year program of encouragement of civil aviation with an appropriation of ¥150,000,000 for the first period, and of ¥80,000,000 in the second period. The first period will see the opening of new regular air services, the establishment of aviation grounds, the subsidizing of aviation ground construction, the construction of facilities necessary for emergency landing of planes, the training of aviators, the encouragement of airplane manufacturing and many other enterprises

over a period of four years, commencing in 1936. Regular air routes are planned to Soviet Saghalien, Japan's mandated South Sea islands, Singapore, Manila, Java and Kamchatka. The plan stipulates that these routes will be made "regular," but it is problematical whether this can really be done. The question whether these routes can be regularly operated or not is a trifling affair. The development of civil aviation cannot be fully realized under the guidance and protection of the Government, but depends very much on the co-operation of private bodies. In Europe and American individuals make greater efforts for the development of civil aviation. This is the reason why their civil aviation has realized such a great development. The draft plan for development of civil aviation in Japan, about which much has been heard recently, has been approved by the committee concerned of the Aviation Enterprises Investigation Commission under the Ministry of Communications. Thus the authorities of the Communications Ministry, who are eager to put the plan into operation at the earliest possible moment, will soon open negotiations with the Finance Ministry for the necessary funds. The program is to be carried out over 10 or 15 years, depending on various circumstances. The plan consists of the following eight items: 1. Expansion and improvement of domestic air lines. 2. Inauguration of international air services. 3. Training of pilots and mechanics. 4. Control and encouragement of the manufacture of airplanes. 5. Encouragement of the use of planes made in Japan. 6. Protection and encouragement of aeronautical enterprises. 7. Installation of more radio equipment in connection with aviation. 8. Protection and encouragement of the use of airships.



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Japan



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the "Big Six" Banks of Japan



As the need for new air fields, more extensive domestic air lines and the opening of international lines are regarded as urgent, the Communications Ministry would like to have ¥120,000,000 to spend in the first three fiscal years, about ¥40,000,000 annually. The balance of the estimated cost, ¥50,000,000, would be spread over seven or 12 years. At present, the manufacture of airplanes and other aeronautical equipment is supervised independently by the War, Navy and Communications Ministries. Modest but definite progress of commercial aviation in Japan is indicated by the annual report of the Japan Air Transport Company issued at the end of March, 1935, which reports mail carried by the company's planes during 1934 totaled 1,268,453, recording almost a 50 per cent increase from the 647,601 of the previous year. Commencing April 1, 1935, the company resumed night flying and also has inaugurated a special early morning service bringing Mukden, Manchoukuo, within a day's reach of Tokyo by way of Seoul and Dairen. The early morning service was extended to Hsinking, capital of Manchoukuo, on May 1. During 1934 Japan Air Transport Company maintained the longest route, totaling 2,118 kilometers, between Tokyo and Dairen by way of Nagoya, Osaka, Fukuoka, Urusan, Seoul, Heijo and Shingishu. Of the other aviation concerns, Japan Aviation Research Institute maintains a 290-kilometer service between Osaka and Matsuyama in Shikoku, by way of Takamatsu; a 415-kilometer service between Tokyo and Niigata; and the Japan Marine Air Transport Company a newly-opened service between Matsue, Shimane Prefecture, and Shirosaki, on the Japan Sea coast. The Tokyo-Shimoda service is operated only

between May and September and the Tokyo-Niigata service between May and October. In 1934 the total distance of commercial air routes in Japan was 3,751 kilometers, compared to 89,554 kilometers in the United States, 34,538 kilometers in Great Britain, 47,412 kilometers in Germany, 37,259 kilometers in France, 23,414 kilometers in Holland and 11,866 kilometers in China. The Japan Air Transport Company plans to open a regular passenger and mail service between Japan and Palao Island, in the mandated South Sea Islands in January, 1935 and another between Tokyo and Toyama sometime between May and September. A Government subsidy of ¥434,000 will be granted for the former service. Except for the Japan Air Transport Company, which has a paid-up capitalization of ¥4,000,000, all Japanese commercial aviation firms are still operated on an extremely limited scale, while even Japan Air Transport is assisted by an annual Government subsidy of ¥500,000. A comparison of Government subsidies to commercial aviation concerns among leading nations follows :

	Subsidy for regular aviation (¥1,000)	Nos. of planes used	Subsidy per plane
Japan	1,500	34	44
America	43,160	590	73
Great Britain	5,480	32	171
Canada	740	51	145
Italy	7,660	78	98
France	14,650	258	56
Germany	8,500	179	47
Holland	570	25	22

Japan at present has a total of 152 civil airplanes, of

which 34 are in use for regular service. The total number is in striking contrast 1,055 in Great Britain, 345 in Canada, 393 in Italy, 1,654 in France, 1,072 in Germany and 67 in Holland. While an average airplane costs ¥10,000 in Great Britain, the cost in Japan is ¥21,000, principally because demand is exceedingly small. There are eight airplane factories in Japan, namely, those of the Mitsubishi Heavy Industries, Ltd., Nagoya; the Kawasaki Dockyard Company, Kobe; Aichi Clock and Electric Machine Company, Nagoya; Nakajima Airplane Manufacturing Works, Ota, Gumma Prefecture; Kawanishi Airplane Works, Hyogo; Ishikawajima Airplane Manufacturing Company, Tokyo; Watanabe Iron Works, Fukuoka, and Tokyo Gas and Electric Industry Company, Tokyo. Now, a Tokyo-London trip can be made in a week by proper connections. First, Tokyo is connected with Osaka, Fukuoka in Kyushu, Seoul, the capital city of Korea, Shingishu on the Korean-Manchoukuo border, and Dairen in the Kwantung Leased Territory. Connections with the Manchoukuo regular air services are made at Shingishu and Dairen. The Manchoukuo air service extends as far as Manchouli on the Manchoukuo-Siberian border by way of Mukden, Hsinking (the capital city of Manchoukuo) and Harbin. From Chita beyond Manchouli a direct air service is maintained to Moscow, thence to Berlin, Paris and London. The present Osaka-Fukuoka service will be extended to Shanghai, 950 kilometers, shortly. The Formosan service from Fukuoka, 1,600 kilometers has already been opened. When air connection with China is opened, travel to Shanghai, Hankow and Canton will be made possible. In the future, air travel to Singapore, India, Paris and London may also be realized.



The position of Japan in international air service will be very important. The history of aviation in Japan is brief. In December, 1910, Lieutenant Tokugawa of the Imperial Army flew in an airplane at Yoyogi, Tokyo, and Captain Hino also of the army flew in a Glady aeroplane. This was the first airplane flight made in Japan. In the spring of 1911 an airplane No. 2 of the Yamada type was taken out of the hangar at Osaki, in a Tokyo suburb, and made a successful cross-country flight. In March and April of the same year, an American flier made exhibition flights in Tokyo and Osaka; on April 8, Mr. Shinzo Morita, who had studied flying in France, flew in a 45 h.p. monoplane over the Joto parade ground in Osaka, (this was the first flight by a civilian flier in this country) and, in April of that year, the aerodrome at Tokorozawa was completed. In June, 1912, an American flier conducted a series of exhibition flights by seaplane over the sea off Nishinomiya near Osaka, and, in July of that year, five officers were selected from each army division to be trained as flying officers. This marked the beginning of instruction in flying to military officers in this country. In February, 1913, the Teikoku Hiko Kyokai (Imperial Aeronautical Association) was established; on May 4 of that year, Mr. Koha Takeishi, a civilian flier, started on a Naruo-Osaka-Kyoto flight, but, when landing in the Fukakusa parade ground in Kyoto, he met with disaster and was killed, the first victim of civilian aviation in Japan. In 1914, a contest for civilian aviators was held at Naruo near Osaka under the auspices of the Imperial Aeronautical Association, and, during the Tsingtao campaign Japanese airplanes took part in actual fighting for the first time and displayed their ability in scouting, in

bombing the enemy, and in an aerial combat with enemy planes. In 1915, a meet of civilian fliers was held in Osaka, and a military flying battalion was formed. Between January and April, 1916, American aviators visited Japan performed stunt flying at Naruo and other places ; and, on April 27 of that year, night flying was successfully carried out for the first time in this country. In 1917, the flying battalion and a balloon corps. In April of that year, Mr. Art Smith, an American flier, again visited Japan and demonstrated a series of aerial feats in Osaka and Tokyo. In April, 1918, Mr. Masao Goto, a private flier, succeeded in making a non-stop flight between Tokorozawa and Osaka for the first time. In April, 1925, air mail service was started between Tokyo and Osaka ; and, on July 25 of that year, an airplane of the Asahi Shimbun took off from the Yoyogi parade ground in Tokyo and, on October 27, reached Rome after a flight of 16,000 kilometers by way of Moscow, Paris and London. In 1926, the Japanese Navy purchased from Italy the dirigible S-No. 3, with a semi-rigid frame, and introduced this type of craft into Japan for the first time. In 1929 the Japan Air Transport Company, Ltd. was established and inaugurated a regular air passenger service between Tokyo, Osaka and Fukuoka, later extending it to Seoul and Dairen ; and two army scouting planes of the 88-type flew between Tachiarai and Heito without stopping, making a record of aerial connection between the mainland and Formosa. In 1930, Mr. Yoshihara, a civilian flier, flew from Berlin to Tokyo via Siberia in 11 days and simultaneously Mr. Azuma, also a civilian flier, reached Tokyo from Los Angeles via New York, London, Berlin and Siberia. After the lone flight over

the Atlantic by Colonel Lindbergh, the attention of world aviation circles was directed to the Northern Pacific, the air over which still remained un-conquered. Following the failure of Lieutenant Bromley to cross the Pacific, on August 2, 1931, two American civilian aviators, Messrs. Robins and Jones, attempted to fly across the ocean from Seattle, but, owing to the inclemency of the weather, were forced to turn back to Fairbanks. On September 8, Messrs. Allen and Moyle, both Americans, took off from Sabishiro for America, but were forced to land on a small uninhabited island off Kamchatka. Later, their attempt to carry out a record round-the-world flight having failed, Messrs. Pangborn and Herndon, also Americans, discontinued their swift air trip at Habarovsk and flew over to Japan to fly across the Pacific for a prize offered by the Asahi Shimbun. On October 4, they left Sabishiro and reached Wenatchee, Washington, U.S.A. in 41 hours and 10 minutes, performing an exploit comparable with that of Colonel Lindbergh in flying over the Atlantic. In June, 1932, Mr. Brown, an American flier, tried to fly across from Seattle to our coast, but was eventually compelled to give up his attempt. Prior to the trans-Pacific flight of Messrs. Pangborn and Herndon, in August, 1931, Miss Amy Johnson, a British aviatrix, visited Tokyo, covering the distance of 12,000 kilometers between London and our capital in ten days, and Miss Etzdorf, a German aviatrix, flew solo from Berlin to Tokyo via Siberia, while Colonel and Mrs. Lindbergh, who had left America on a round-the-world flight, paid a visit to Tokyo by air via Alaska, Kamchatka and the Kurile Islands, and Mr. Chester, an Australian aviator, came here from his native land across the South

Pacific. In passing, civil aviation in Manchuria has made rapid strides since the founding of the new State of Manchou. At present there are no less than 13 regular air routes operated by the Manchuria Air Transport Company. Aviation in Manchuria is favored by the vastness of territory and suitable climatic and topographical conditions. There is a growing demand for regular mail and passenger services, and the use of airplanes for conducting special operations in connection with public peace maintenance, and for forestry surveys and other aerial investigations. The air routes are the Shingishu-Mukden line; Dairen-Hsinking line; Hsinking-Harbin-Tsitsihar line; Tsitsihar-Manchouli line; Mukden-Chinchow line; Chinchow-Lingyuan-Chengte (Jehol City) line; Chinchow-Chihfeng line; Chihfeng-Weichang-Chengte line; Hsinking-Tumen line; Harbin-Fuchin line; Harbin-Tungning line; Harbin-Heiho line; and Tsitsihar-Heiho line. Commercial aviation already is an established industry. Year by year mileage covered is gaining and more passengers are being carried. Today, in order to make possible further expansion, airports are being built and night flying facilities are in preparation. Though great efforts are being made, Japan has not yet completed aviation development within her borders and she has not yet sufficient reserve for attempting overseas development. The line to Manchoukuo is the only one that may be termed international. Thus, much of Japan's aerial development is still in the future. It must be remembered that upon the united efforts of the nation rests the success of further expansion and progress in this direction.

## **Money Market, Finance and Insurance**

- a. Characteristics of Financial System
- b. Historical Retrospect of their Development
- c. Currency System and Prices
- d. Finance
- e. Development of Insurance

### **a. Characteristics of Financial System**

Banks form the center of the financial system of Japan, as in other countries. One of the characteristics of the Japanese banking system is that special banks exist along with ordinary banks and have a great influence on the money market. The special banks are financing institutions founded under special banking acts. They are under direct control and supervision of the Government either as real estate or trade banks. Some of them are invested with the right of issuing debentures and others of issuing notes. Generally speaking, the Government has a great influence over financial circles. For example, the Deposits Bureau of the Finance Ministry has great resources including over ¥3,000,000,000 in postal savings deposits and transfer savings deposits. The Bureau is noteworthy in the financial circles of Japan. Another example is credit societies on a co-operative basis. These societies serve as financing medium for agricultural villages or small-scale industries. Life insurance companies are not financing organizations in form, but play an important part in Japanese financial circles. A little explanation is necessary for ordinary and special banks. Among ordinary banks are the "Big Six." These banks as a whole

wield a great influence. They, are the Mitsui Bank, Mitsubishi Bank, Sumitomo Bank, Yasuda Bank, Daiichi Bank and Sanwa Bank. The first-mentioned three banks are financing organs of the Mitsui, Mitsubishi and Sumitomo business interests. Each is a great industrial and trade organization and these banks are carrying on their business on the economic background of these business institutions. Their activity is extended not only to domestic but international fields, but the Yasuda Bank's influence is mainly domestic. The Sanwa Bank was created as the result of a merger of three large commercial banks of Osaka in August, 1933. The combined capitalization of the six banks reaches ¥584,700,000, forming an overwhelmingly large portion of all Japanese banking capital. Of this total, the Mitsui and Mitsubishi banks are capitalized at ¥100,000,000 each, the Yasuda Bank at ¥150,000,000, the Sumitomo Bank at ¥70,000,000, the Daiichi Bank at ¥57,500,000, and the Sanwa Bank at ¥107,000,000. Their real influence is not limited to the spheres of their capitalization. Most of the large trust companies are directly or indirectly affiliated with these banks, maintaining close connections with each other. The Daiichi Bank is the only one that is not related to a trust company. As regards insurance, the Mitsubishi concern has more than half of all accident insurance companies under its control. All these banks either are in the life insurance business or have influential companies under their control. Thus, not only in banking but throughout other financial circles these banks are dominant. In recent years, the activity of special banks is enlivening the business of these big ordinary banks all the more. The Bank of Japan is called "the bank of all banks" and is

vested with authority to issue bank notes for circulation through the Empire. It only transacts business with banks and does not conduct a general banking business. The circulation of notes and control of ordinary banks are its chief functions. The Bank of Japan Act was revised a few years ago with the object of making the reflation policy effective. The revision has added to its power of control. In 1932 the Convertible Bank Note Act was revised. By this revision, the limit of the guaranteed issue of the Bank of Japan was increased from ¥120,000,000 to ¥1,000,000,000. Furthermore, the Bank is authorized to make an excess issue for a period of 15 days and, if such issue is overdue, the matter must be sanctioned by the Finance Minister and a 3 per cent tax is imposed on the excess issue, instead of 5 per cent before the revision of the Act. As the result, the Bank is able to supply a large amount of capital at a cheaper money rate. In the same year, the Advisers' Council was established in the Bank. The Council consists of members appointed from among representatives of large private banks such as the Mitsui, Mitsubishi, Sumitomo and others. Thus, the central bank has been brought closer to private banks. The Yokohama Specie Bank is the oldest special bank and the leading exchange bank. The Hypothec Bank of Japan is a real estate bank, advancing money on a long-term basis. This bank is invested with authority to issue debentures with premiums to a limit of 15 times its paid-up capitalization. The Agriculture and Industry Banks in prefectures do the same kind of business. They are given a charter to issue agricultural and industrial debentures. A law calling for a merger of the Hypothec Bank of Japan and these agriculture and industry banks

was promulgated in 1921 and since then the merger has been carried out gradually. Thus, the Hypothec Bank of Japan has enlarged its business scope and status. The Industrial Bank of Japan advances loans to industries on real estate mortgages. The institution is empowered by law to issue debentures not exceeding 10 times its paid-up capitalization. The Hokkaido Colonial Bank was founded with the object of supplying funds necessary for the industrial development of that region. It is vested with authority to float debentures not exceeding 16 times its paid-up capitalization. The Bank of Chosen and Bank of Taiwan are the respective central banks of Korea and Formosa and are given charters to issue bank notes for circulation in these colonial territories. These two institutions expanded too much during the World War and had to readjust their business later in the form of a reduction of their capitalization and other measures. The capitalizations of these special banks follow :

Bank of Japan	Yen 60,000,000
Yokohama Specie Bank	100,000,000
Hypothec Bank of Japan	108,750,000
Industrial Bank of Japan	50,000,000
Bank of Chosen	40,000,000
Bank of Taiwan	15,000,000
Hokkaido Colonial Bank	20,000,000

#### **b. Historical Retrospect of their Development**

A brief history of their business development follows. The banking system of Japan has attained its present state during about 60 years since 1870. It was in 1872 that the modern banking system was introduced into Japan with the enforcement of National Banking Act by the



Government. In 1880 the Yokohama Specie Bank was founded and it was followed by the Bank of Japan in 1882. Their appearance resulted in the national banks being deprived of the right of note issue. In 1893 the Bank Act and Savings Bank Act were enforced. In 1897 the Hypothec Bank and agriculture and industry banks were founded, and in 1899 the Bank of Taiwan was founded, being followed in ensuing year by the Hokkaido Colonial Bank. The Industrial Bank of Japan was established in 1902 and the Bank of Chosen in 1909. The system of ordinary banks also was consolidated in line with the establishment of these special banks. In 1880 the number of ordinary banks was 39 with a combined paid-up capitalization of ¥280,000, but in 1897 it increased to 1,217 with a paid-up capitalization of ¥149,286,000. The World War stimulated these banks to grow rapidly. The following table shows the development of ordinary banks after 1896.

End of	No. of head offices	Average subscribed capitalization per bank (¥1,000)	Average deposits per bank
1896	1,338	142	288
1901	2,359	218	259
1907	2,207	275	826
1914	2,155	438	1,072
1919	2,053	902	4,793

As is seen above, ordinary banks in Japan early in the period of their development were mostly small. Their number has kept declining since 1901. This meant banks whose business was small and unsound were eliminated by means of mergers with larger banks, which consolidated

their business foundations. Especially during the World War the size of the average bank was enlarged quickly in line with the general economic prosperity. When a post-war crisis overtook the country, many of these banks suffered from their weak consolidation. They were dragged into a vortex of great financial reaction and went down. Those which survived the severe ordeal had to strengthen their business status through merger and other means of readjustment. At the same time mergers among weak banks took place. A great financial panic of 1927 marked a new epoch for bank mergers in this country. The new banking law now in force was promulgated in that year. This law provides that banks must be capitalized at more than ¥1,000,000 if on a joint-stock basis. Banks other than the joint-stock had to reincorporate themselves into joint-stock institutions in five years following the promulgation of the law. A bank having its head office in a town with a population less than 10,000 is exempt from the application of this law, but was obliged to have its capitalization increased to ¥500,000 in five years following the enforcement of the law. It is also provided in the law that a bank having its head office or a branch in Japan's two largest cities, Tokyo and Osaka, must have a capitalization of more than ¥2,000,000. Under this law, mergers among small provincial banks had made rapid headway. Joint efforts by the Finance Ministry, prefectural governments and the Bank of Japan had encouraged bank mergers on the principle of "one bank for one prefecture," thereby trying to consolidate the system of provincial finance. This merger process came to a halt in 1932. The result was that the index number of the number of banks

in 1932 was 31 on the basic figure of 100 for 1919, that of the capitalization of banks in the same year was 428, that of deposits per bank was 375, and that of loans was 371. Thus while the bank mergers had realized satisfactory results and average scale of banks enlarged perceptibly, money was finding its way mostly into large banks, where an enormous amount of deposits was concentrated. This has elevated the status of Japan's "Big Six" ordinary banks (until before 1933, when the Sanwa Bank was founded, it was the "Big Five") and increased their influence. The argumentation of the influence of large banks as reflected in their deposits between 1926 and 1934 is shown in the following figures :

	1926	1930	1934
	(¥ 1,000)		
Big Five banks	2,178,610	3,187,877	5,080,132
Other 7 large banks	1,424,105	1,640,694	839,106
Total	3,602,715	4,828,571	5,919,238
Grand total	9,174,360	8,658,539	9,353,692

Ratios of Deposits  
(In percentage)

Big Five banks	23.7	36.9	5.43
Other 7 large banks	15.6	18.9	0.90
Total	39.3	55.8	6.33
Other banks	60.7	44.2	3.67
Grand total	100.0	100.0	100.0

Total deposits of ordinary banks usually decline during a time of financial depression, but those of the largest banks were on the increase. Deposits in the next largest seven banks were rather stagnant. The ratio of gain in the Big Five banks advanced from 24 to over 40 per cent,

revealing the great concentration of deposits in the largest banks.

### **c. Currency System and Prices**

It was in 1897 that Japan adopted the gold standard system. The present coinage system is based on the Coinage Law, issued in 1897, which established the gold monometallic system. The coinage unit is 2 fun (0.75 grams) of pure gold, that is, one-half of the former gold unit and is denominated one yen. The Bank of Japan which had been issuing convertible notes by virtue of the Convertible Bank Note Act of 1884 revised its old notes to gold notes. Due to the replacement of the gold embargo and the simultaneous suspension of conversion of notes in December, 1931, no gold notes are now in circulation here. Since 1897 no gold coin has really been circulated in Japan. Japan amassed an enormous amount of gold, as the result of her large export excess during the World War, but when the United States banned the export of gold in 1917, Japan followed suit. The external value of the yen changed according to the amount of sales of Japan's specie abroad and the forwarding of specie abroad by the Government. The gold embargo at first was carried out tentatively for a short period. The United States lifted the gold embargo in 1919 and European Powers also restored their gold standard gradually. But Japan did not lift it, due to domestic reasons. At last, however, Finance Minister Inouye of the Hamaguchi Cabinet removed the embargo in January, 1930, but no financial stabilization was realized. The universal economic depression that started in the United States in the fall of 1929 engulfed Japan

also. Deflation following the removal of the gold ban made the situation worse. Great Britain went off gold in September, 1931, and a great exodus of gold from Japan began. The foundation of the gold standard collapsed, and it was impossible for Japan to retain the gold standard by any means. The Inukai Cabinet replaced the gold embargo on the day of its induction on December 16, 1931. The suspension of conversion of notes into gold was carried out simultaneously. Thus, Japan departed from gold completely. There is distinct difference of nature between the suspension of the gold standard system at present and that before 1930. Japan does not make any effort to link the value of the yen to gold, as was formerly the case. A policy of raising prices is followed and the exchange rate is stabilized at a point far below the mint par by means of the Exchange Control Law. Immediately previous to the replacement of the gold embargo, the yen-dollar exchange T.T. rate was quoted at  $\$49\frac{3}{8}$ , but with the replacement it dropped to about  $\$34\frac{1}{2}$ . The quotation early in 1932 was in that neighborhood. The flight of capital abroad, which became suddenly active after the departure of Great Britain from gold, continued into the days following the replacement of the gold embargo in anticipation of a further drop of the yen exchange. The outbreak of the Shanghai Incident early in 1932, combined with uncertainty of domestic politics, aggravated the situation. The yen exchange rate continued to slip. To counteract the situation, the Government decided to carry out exchange control. On July 1, 1932, the law preventing the flight of capital abroad was enforced, but still the flight of capital by means of export bills continued. Orders were issued in November

by the Government forcing exchange to report details of exchange transactions among banks every day instead of the submission of reports once a month. Still, however, the exchange rate kept falling. At the end of November the rate fell below \$ 20. This state of affairs eventually caused the Government to enforce exchange control to a thoroughgoing extent. The exchange control law was applied in May, 1933. The control law was fairly vigorous in the extent of control over such things as the acquisition and disposal of foreign currency and exchange, the export of currency, bullion and gold alloys, the melting down or defacement of gold coins, the remittance abroad of gold by means other than the above-mentioned, the acquisition or disposal of the securities denominated in foreign currencies or debts and credits in such currencies, the issuance or acquisition of letters of credit, the act that gives credit to those residing abroad, the export or import of debentures, and various others. Details follow :

Art. 1 Unless permission is given by the Minister of Finance, no person is allowed to export gold coins, gold bullion, alloy containing gold or any materials consisting mainly of gold. Persons are prohibited from melting or destroying gold coins.

Art. 2 Any transactions in foreign exchange (exchange bills, bank cheques, telegraphic remittances or postal money orders sent to and from this country) for the purpose of receiving profit due to fluctuations in the exchange market, and not covering actual trade requirements, are prohibited. However, yen exchange transactions between this country used by compulsion are excepted from this provision.

Art. 3 The following acts are prohibited unless permission be given by the Minister of Finance :

(1) Purchases of foreign currency or foreign exchange against Japanese currency or the yen exchange bills sent to the regions where Japanese money is used by compulsion.

(2) Sales and purchases of foreign exchange against Japanese currency among those who are not engaged in the exchange business.

(3) Sales and purchases of the yen exchange against foreign currency.

(4) Sending or carrying of currency, foreign currency or bank cheques or any remittances to foreign countries through other methods than those provided in Article 1 and other articles in this ordinance.

(5) Payments within the territories in which, this ordinance is enforced, based on commissions entered into in foreign countries.

Art. 4 Irrespective of the provisions in the foregoing Articles, no permission from the Minister of Finance is required in the following cases :

(1) Foreign exchange transactions actually required for export and import of merchandise.

(2) Foreign exchange required for payments of insurance money, premiums (provided that such payments be made within 6 months) or covering other payments in connection with insurance contracts.

(3) Foreign exchange required for remittance to creditors residing in foreign countries, of interest on public bonds, debentures or bank deposits payable in this country or profit from trust, dividend on share stocks and other earnings.

(4) Exchange transactions required for payments of funds covering principal of and interest on public bonds

and debentures which are to be made within a 6-months period to meet obligations in foreign countries.

(5) Besides the cases specified in the foregoing clauses, those required for payments within 6 months for carrying out obligations in accordance with contracts entered into prior to the enforcement of this ordinance or those required for payments in carrying out obligations of contracts which will be entered into after the enforcement of this ordinance, provided that the amount of such payments is below one thousand yen throughout one year.

(6) Exchange transactions required for payments in connection with the acquirement of patent rights, other manufacturing rights or those covering the use of these rights in this country.

(7) In case a person intending to travel in foreign countries is required to have travelling expenses for one year or less, provided that the amount of such foreign currency does not exceed one thousand yen.

(8) When required for remittance of travelling expenses, salaries, allowances, school expenses and kindred others necessary for six months or less.

(9) When required for remittance of expenses necessary for the settlement of emigrants appointed by the Minister of State concerned or when required for remittances of expenses for corporations or other legal persons for carrying out the emigration enterprises.

(10) When required for remittance of funds by a person who has residence, main business office or other principal offices in this country or the territories where Japanese currency is in use by compulsion, for operation of business in the territories.



(11) When required for payments against drafts issued in foreign countries in accordance with letters of credit issued in this country.

(12) When required for business of the Government office.

Art. 5 Despite the provisions in Article 3 permission of the Minister of Finance is not required for banks to do following acts :

(1) Purchases of yen exchange destined to the territories where Japanese money is used by compulsion, in accordance with request of their clients, including banks.

(2) Purchases of yen exchange and remittance to the territories where Japanese currency is in use by compulsion, for settlements of transactions in connection with yen exchange sold to those territories.

(3) Payments against drafts sent to the territories in which this ordinance is enforced, from the territories where Japanese currency is in use by compulsion.

Art. 6 Without permission of the Minister of Finance, no person is allowed to acquire, for compensation, any foreign issues (including public bonds issued by the Japanese Government or government of foreign countries, debentures or shares, stock or any other interest coupon bearing securities in foreign currency). The immediately preceding provision is not applicable in the cases of acquiring within this country securities in foreign currency which have been in this country on or before July 1, 1932, or those imported from foreign countries with permission granted in accordance with the Law for Prevention of the Flight of Capital or the Foreign Exchange Control Law. The provision is not applicable also in the case of acquirement

by foreign citizens or subjects of securities in foreign countries.

Art. 7 Unless permission be given by the Minister of Finance no person is allowed to acquire any credit in foreign currency (excluding foreign exchange bills and securities in foreign currency) against Japanese currency.

Art. 8 Unless permission be given by the Minister of Finance no person is allowed to enter into contracts for borrowing and lending or those on deposits covering credit or debit accounts in foreign currency in the territories where this ordinance is enforced.

Art. 9 Unless permission is granted by the Minister of Finance, no person is allowed to enter into contracts of insurance or trust covering credit or debit accounts in foreign currency in the territories where this ordinance is enforced. (Reinsurance and marine insurance contracts are excepted.)

Art. 10 Unless permission be given by the Minister of Finance, no person is allowed to issue debentures in foreign currency or to borrow in foreign currency on security of property in this country.

Art. 11 Unless permission is given by the Minister of Finance, no person is allowed to acquire, within the territories where this ordinance is enforced, letters of credit which have no connection with shipments of merchandise imported into this country. This provision is, however, not applicable on the acquirement of travellers' letters of credit (including traveler's cheques) covering travelling expenses of a person intending to travel in foreign countries, provided that such letters of credit are acquired within 2 weeks before departure and that the amount is not above ¥10,000, or on the acquirement of

letters of credit covering travelling expenses or other allowances disbursed by the Government offices.

Art. 12 Unless permission is given by the Minister of Finance, no person is allowed to import or export securities (including public bonds of this or foreign countries, debentures, shares or stocks and coupons of bonds and debentures). Importation of securities redeemable within this country, however, is excepted, provided that such importation is made within three months prior to repayments or after repayments. Persons who imported and exported securities with permission of the Minister of Finance given in accordance with the preceding provision, are required to report to the Minister of Finance within two weeks after such commitment, in conformity with special provisions.

Art. 13 Unless permission is given by the Minister of Finance, no person is allowed to export merchandise, a part or whole of the value of which is not covered by exchange bills. The following cases are excepted, however.

- (1) Shipments forwarded as samples or consignments.
- (2) Shipments of merchandise for which payment has been received by shippers prior to exportation.
- (3) In case a foreign exchange draft cannot be drawn or foreign exchange drafts are not drawn due to trade customs.
- (4) Exportation by parcel post of merchandise valued at ¥1,000 or less. When export shipment is made without drawing a foreign exchange draft on a part or whole of the value of such shipment, due report should be made to the Minister of Finance through the Post Office or Custom House according to provisions specified

elsewhere. This provision is not applicable to articles exported by Government offices, travellers' baggage, household articles belonging to those who are leaving this country, articles for ships, articles donated for relief or other philanthropic purposes or shipment of articles valued at less than ¥100.

Art. 14 In case a person who exported to a foreign country merchandise, the value of which is not covered partly or wholly by foreign exchange bills, or exported merchandise to the territories where Japanese currency is used by compulsion, without covering a part or whole of its value by a yen exchange draft, receives proceeds of the merchandise in foreign countries, such person is required to make arrangements to get the net proceeds back to this country, after deducting business expenses and cost of any merchandise which such a person has imported into this country, within two months after the receipt of the proceeds in the foreign country. Shipments made with permission of the Minister of Finance are excepted from this ruling.

Art. 15 A person who owns securities in foreign currency falling due, is required to sell or receive payment thereon in this country within three months after maturity, excepting those the value of which aggregates below ¥1,000 or those acquired with permission of the Minister of Finance.

Art. 16 Persons who sold securities in foreign currency which they owned in foreign countries, or received payments thereon in foreign countries are required to made arrangement to get the proceeds back to this country within two months after the sales or receipt of payment, deducting business expenses, excepting those the

value of which amounts to less than ¥1,000 or those approved by the Minister of Finance. Persons who own securities in foreign currency in foreign countries falling due are required to receive payments thereon within three months after maturity, excepting those the value of which does not exceed ¥1,000, or those acquired with permission of the Minister of Finance.

Art. 17 Banks which are engaged in foreign exchange business are required to report to the Minister of Finance the place of their business offices within two weeks after this ordinance goes into effect. Banks which intend to operate a foreign exchange business must report to the Minister of Finance the place of business beforehand. Banks which have made due report to the Minister of Finance regarding their operations in foreign exchange, in accordance with the preceding two paragraphs, shall be known as foreign exchange banks, and their places of business and changes thereof shall be officially notified to the Minister of Finance. Foreign exchange banks which have ceased to operate a foreign exchange business, are required to report to the Minister of Finance to that effect within two weeks after such a change.

Art. 18 Notwithstanding the provisions in Article 3, Article 6 and Article 7 of this ordinance, foreign exchange banks are allowed to do the following business without the permission of the Minister of Finance:

(1) Sales and purchases of foreign currency or foreign exchange (including business corresponding to foreign exchange transactions) on request of their clients (including banks).

(2) Foreign exchange banks may sell and buy foreign exchange or remit money to foreign countries in order to

make readjustment in their funds, within the necessary limit in connection with sales and purchases of foreign exchange and previous clause.

(3) Foreign exchange banks may make payments against foreign exchange drafts issued in foreign countries, payable in the territories in which this ordinance is enforced.

(4) The banks may export securities in foreign currency for repayments, within three months prior to their maturity or after their maturity. Provisions in Articles 15 and 16 are not applied in the case of foreign exchange banks.

Art. 19 Foreign exchange banks are required to submit minute reports to the Minister of Finance according to other special provisions regarding sales and purchases of foreign exchanges, sales and purchases of yen exchange, drafts drawn against the territories where Japanese currency is in use by compulsion, transactions on drafts for collection, and issuance of letters of credit for each month. Such reports should be made by the 15th of the following month.

Art. 20 Foreign exchange banks are required to report to the Minister of Finance, in accordance with other special provisions, the daily amount of their foreign exchange transactions, and the amount of outstanding selling or buying contracts at the end of the day, within three days. Reports covering transaction conducted at their branch offices in foreign countries may be made for each 10-day period.

Art. 21 Persons whose business consists principally of sales and purchases of securities, or a security agency, are required to submit minute reports in due form to the

Minister of Finance regarding their monthly accounts of securities in foreign currency, by the 15th of the following month.

Art. 22 Persons who hold trust and insurance contracts in terms of foreign currency at the time of enforcement of this ordinance are required to report to the Minister of Finance in accordance with due forms provided, within one month after the law has taken effect. However, contracts involving ¥1,000 or less are excepted from this rule.

Art. 23 Persons who have made the transactions and commitments included in the following list in this country or foreign countries after this ordinance has taken effect, are required to submit a monthly report to the Minister of Finance by the 15th of the following month, in due forms provided. However, transaction or commitment, whose objective involves less than ¥1,000, is excepted from this rule.

- (1) Acquirement or disposition of foreign exchange.
- (2) Acquirement or disposition of the yen exchange drafts drawn against the territories where Japanese currency is in use by compulsion.
- (3) Remittances to foreign countries through methods other than the foregoing three.
- (4) Acquirement or disposition of securities in foreign currency.
- (5) Issuance or acquirement of letters of credit.
- (6) Placing or withdrawing of bank deposits in terms of foreign currency.
- (7) Advancing and collecting of loans in terms of foreign currency.
- (8) Trust transaction in terms of foreign currency.

- (9) Insurance contracts in terms of foreign currency.
- (10) Issuance or redemption of debentures in terms of foreign currency.
- (11) Receiving or paying of deposits in terms of foreign currency.
- (12) Borrowing or repaying of debts in terms of foreign currency.
- (13) Persons who make payments based on commission given in foreign countries, in the territories in which this ordinance is enforced, are required to report to the Minister of Finance. Persons who intend to travel in foreign countries are required to report to the Minister of Finance before their departure, irrespective of the time specification given above.

Art. 24 The provisions in the preceding Article, excepting 1 and 2, are not applied to transactions and commitments made by foreign citizens or subjects in foreign countries.

Art. 25 Minute reports regarding transactions and commitments in foreign countries which are to be submitted to the Minister of Finance in accordance with the provisions in Articles 19, 21 and 23, are required to be forwarded from abroad to the headquarters or equivalent office in this country, and are to be submitted by the latter without delay after receipt of the documents.

Art. 26 When persons who possess foreign currency, foreign exchange, securities in foreign currency, deposits or credit in terms of foreign currency or those who are indebted in terms of foreign currency, become residents in the territories where this ordinance is enforced, such persons are required to report to the Minister of Finance the amount of money involved. Cases involving less



than ¥1,000 are excepted from this rule.

Art. 27 If by accident or due to causes beyond the control of persons who are bound to submit minutes or reports to the Minister of Finance within a fixed period under this ordinance, they fail to submit them within the fixed period, they should submit such documents immediately after the causes cease to exist, explaining the reasons for delay.

Art. 28 The Minister of Finance may solicit, if he deems it necessary, reports on such matters from persons other than those mentioned in the Articles of this ordinance.

Art. 29 The Minister of Finance may order, if it is deemed necessary, officials of the Government to inspect books and other documents belonging to any persons regarding the matters related to provisions for prohibition and restrictions in Article 1 of the Foreign Exchange Control Law.

Art. 30 The Minister of Finance may order any person to dispose of or sell to the Bank of Japan or other institutions his holdings of gold bullion, foreign currency, foreign exchange or securities in foreign currency or credit in terms of foreign currency, excepting those recognized as being held for legitimate business or other legitimate reasons.

Art. 31 Rules are provided specially for reports to be submitted to the Minister of Finance, and for permission to be applied for, to the Minister of Finance under this ordinance.

Art. 32 This ordinance takes effect May 1, 1933.

With the enforcement of the Exchange Control Law a change came over the currency system of the world.

This was the suspension of the gold standard by the United States. With this there was created a fear that the yen would go up in terms of the dollar, but the Exchange Control Law has been able to prevent it. The exchange rate of the yen in terms of the pound sterling and dollar since the end of 1932 follows :

Yen-Sterling Telegraphic  
Transfer Rate

	Average Rate
Mint par	2s 0.582 d
December, 1932	1s 3.097 d
June, 1933	1s 2.500 d
December, 1933	1s 2.099 d
June, 1934	1s 2. $\frac{1}{8}$ d
December, 1934	1s 2 d

Yen-Dollar Telegraphic  
Transfer Rate

Mint par	\$ 49.846
December, 1932	\$ 20.648
June, 1933	\$ 24.990
December, 1933	\$ 30.350
June, 1934	\$ 29.655
December, 1934	\$ 28.776

Now, the external value of the yen is stabilized at about \$ 29 and 1s 2d. Speaking of the relations of the currency and prices in Japan, the deflation policy was generally followed before the replacement of the gold embargo and all industries were unfavorably affected by low prices. Prices slipped considerably by the lifting of the gold embargo and economic panic. On the basic figure of 100 for January, 1913, the index number of wholesale prices was 158.6 in January, 1930, according

to the Toyo Keizai Shimpō, but in December of the same year it dropped to 127.9 and further to 126.4 in January, 1931, to 120.4 in June of the same year, reviving to 125 in December of that year. This means for the period between January, 1930, and November, 1931, which preceded the replacement of the gold embargo, the extent of the drop of prices was 42.6. But the replacement of the gold embargo caused prices to go upward, although prices went down in reaction during the first half of 1932. Meanwhile, the exchange rate ebbed considerably and the Government started a policy to boost economy with the adoption of the military budget and relief measures. In June, 1932, the note issue system of the Bank of Japan was revised. By this the Bank was able to issue a larger amount of its notes. All these had served to cause business inflation, and prices went up as the result. The index number of prices in December, 1932, indicated a 33.7 per cent gain over the year before. However, the Bank of Japan has been instrumental in preventing a rapid inflation by means of its open market operations. While accepting an enormous amount of budget deficit-covering bonds for the Government on the one hand, it has been selling these bonds to the market on the other, thereby averting inflation and encouraging industrial development.

#### **d. Finance**

The State finance of Japan for 1886, the year following the introduction of the establishment of the Cabinet system in Japan as the first step toward the Constitutional politics was so poor that the revenue amounted to only ¥85,320,000 as against the expenditures of ¥83,220,000.

The apportionment of the revenue per capita then was ¥2.21 and that of expenditures was ¥2.16. The State finance, however, recorded a considerable inflation subsequently and as the result of the Sino-Japanese VVar, it marked a perceptible gain to ¥187,000,000 in revenue and ¥168,850,000 in expenditures. The per capita apportionment was ¥4.38 in revenue and ¥3.96 in expenditures. These represented a double increase. In ten years after that the Russo-Japanese VVar which Japan fought with her national destiny at stake also caused a great inflation of State finance. Her revenue amounted to ¥530,440,000 and the expenditures ¥464,270,000. The per capita apportionment also advanced to larger figures of ¥10.95 in revenue and ¥9.58 in expenditures. These mean two and a half times those ten years before. In a decade following the termination of the war in 1905, the World War broke out. Japan's finance and economy met with the unprecedented prosperity. During the period of the VVar the State finance marked a startling expansion. For example, the Government revenue for the 1916-1917 fiscal year totaled ¥813,308,000 against the expenditures of ¥690,795,000, but that for the 1922-23 fiscal year the revenue advanced to ¥2,087,345,000 against the expenditures of ¥1,429,689,000. The per capita apportionment gained in correspondence. The Government finance had then gone through a series of unusual expenses such as the financial reaction to the VWorld VVar, the great Kwanto earthquake-fire, and the removal and replacement of the gold embargo. In spite of the post-war economic depression, the State finance has continued to go along the path of yearly expansion. This was caused by the increasing expenses for national

defense, which was forced to be intensified by armament increase with particular reference to warship construction competition among Powers after the War. During the War was in progress, the Government revenue was larger than the expenditures. After the termination of the World War the tendency of increase of ordinary revenue came to an end and naturally the increase of ordinary revenue had to be met by bond issues. All Powers groaning under the post-war financial depression were virtually troubled with the heavy pressure of armament competition. Peace principle began to assert itself. The Washington Conference (1921-22) naval disarmament. The Kato Cabinet was inducted in 1922 on the principle of administrative and financial readjustment, taking advantage of the successful establishment of naval disarmament. This opened an epoch for financial retrenchment. Ten Cabinets rose and fell until the end of 1931, when the replacement of the gold embargo was carried out. With the sole exception of the Tanaka Cabinet, which existed from 1927 to 1928, all other Cabinets that came into being between 1922 and 1931 followed this policy. This was quite natural, considering the common goal of lifting the gold embargo and of restoring "the normal path of economy." The Kwanto great earthquake and fire occurred in 1923. An enormous amount of expenses was required for the post-catastrophe relief and reconstruction and this hampered the execution of retrenchment of State finance. The formulation of the 1924-25 fiscal year's budget was based on the policy not to ask for new demands for enterprises as far as possible and that of the 1925-26 fiscal year's budget was solely based on the administrative

and financial readjustment. The reduction of armament expenses and decrease of bond issues were executed. A large-scale reform of tax system and tariff revision were carried out for the 1926-27 fiscal year. A policy not to issue bonds more than ¥150,000,000 was adopted. The 1927-28 fiscal year's budget was also formulated on this principle. Thus, no special change was introduced into the deflationist financial policy even under the days of economic depression until an abrupt turn for the inflation was adopted in 1932. The expenditures have been increasing yearly, while no increase has been made in the revenue since then. The issues of deficit-covering bonds have thus been made unavoidably to meet the situation. To make good the yearly deficit of State budget an enormous amount of bonds totaling ¥785,047,000 had to be issued for the 1934-35 fiscal year. The State budget for the 1913-14 fiscal year was ¥573,633,000, which gained to ¥1,521,050,000 for the 1923-24 fiscal year, to ¥1,765,723,000 for the 1927-28 fiscal year, further to ¥1,557,862,000 for the 1930-31 fiscal year and finally to ¥2,112,133,000 for the 1934-35 fiscal year. Of the State budget, the military expenses form a large portion of all. Such expenses for the 1913-14 fiscal year amounted to ¥191,885,000, which increased to ¥499,071,000 for the 1923-24 fiscal year, ¥517,237,000 for the 1928-29 fiscal year to ¥686,284,000 for the 1932-33 fiscal year and to ¥937,041,000 for the 1934-35 fiscal year. Until before the 1922-23 fiscal year, the military expenses were larger than the general administrative expenses. The yearly increase of expenses for subsidy, educational expenses, agricultural improvement expenses and others.

Every Cabinet has tried to check the increasing tendency of administrative expenses by means of disarmament and administrative readjustment, but in recent several years the growing economic exhaustion of agricultural villages and business plight of medium-sized and small commerce and industry have become remarkably pronounced and this has hampered the efforts of the Government to stem the outflow of administrative expenses, as it had to pay no small money in the shape of provincial finance relief and subsidy for private economy. Even the Wakatsuki Cabinet which paid its utmost endeavors to the financial retrenchment had to increase the expenses by means of bearing the compulsory educational expenses for the cities, towns and villages by the Treasury. Since 1933 the relief of critical domestic situation has begun to be paid out of the Treasury. Revenue has been kept falling. The ordinary revenue, forming the regular sources for the Government's financial resources, began to drop, as the economic depression was growing keener. The revenue amounted to ¥1,303,832,000 for the 1923-24 fiscal year (including the tax and other income of ¥787,203,000); ¥1,484,779,000 for the 1927-28 fiscal year (tax and other income ¥898,673,000); ¥1,505,012,000 for the 1928-29 fiscal year (tax and other income ¥915,909,000); ¥1,287,047,000 for the 1932-33 fiscal year (tax and other income ¥707,486,000); ¥1,248,302,000 for the 1934-35 fiscal year (tax and other income ¥800,562,000). How much the tax revenue decreased during a period of financial panic between 1929 and 1932 can be seen from the yearly income tax and sake brewing tax, forming the largest of all taxes, for the last fiscal years, as follows ;

Fiscal year	Income tax	Sake tax
1922-23	229,132	222,585
1923-24	163,846	221,497
1927-28	215,070	235,749
1928-29	206,641	235,749
1932-33	136,131	177,395
1934-35	165,076	218,571

The result was that the funded debts of the Government have increased rapidly. Since the 1932-33 fiscal year the no-loan policy has been laid aside and with a turn for reflationist economic policy, the financial policy has also marked a turn with a sharp angle. The outbreak of the Manchurian Incident had caused a startling increase of military expenses, and the domestic conditions had demanded the Government of an enormous amount of other expenses. The economic depression did not allow the Government to introduce a tax increase. No step was open to the Government but to cover the deficit by bond issues. It is true the funded debts of the Government have considerably gained, but this, compared with the prevailing condition of Europe and America, is not so pronounced. Japan's funded debts in the shape of the long-term domestic and foreign debts as well as the short-term debts of notes and temporary loans at the end of the 1922-23 fiscal year amounted to ¥4,601,892,000. This increased to ¥5,049,835,000 at the end of the 1923-24 fiscal year, to ¥5,428,839,000 at the end of the 1925-26 fiscal year, to ¥5,985,899,000 at the end of the 1927-28 fiscal year, to ¥6,447,355,000 at the end of the 1928-29 fiscal year, to ¥6,851,489,000 at the end of the 1930-31 fiscal year, to ¥8,012,748,000 at the end of the 1932-33 fiscal year and ¥9,160,166,-



000 at the end of the 1934-35 fiscal year. Details of funded debts follow :

End of fiscal year	Domestic and foreign debts	Notes	Loans	Total
(In million yen)				
1922	4,341	15	244	4,601
1923	4,729	120	307	5,049
1925	4,999	16	413	5,428
1927	5,397	56	531	5,985
1928	5,831	14	601	6,447
1930	5,955	207	688	6,851
1932	7,054	320	537	8,012
1934	8,650	—	509	9,160

Funded debts of the Japanese Government, without revaluing issues carried at former parity according to current rates of exchange, topped ¥10,000,000,000 at the end of 1935. The total was ¥10,002,391,000, of which long-term debts accounted for ¥9,580,891,000 and short-term debts for ¥421,500,000, all in rice notes. Year-end balances were :

	Dec. 31	Nov. 30
Domestic debts	8,208,005	8,163,788
Foreign debts	1,372,885	1,396,613
Total	9,580,891	9,560,402
Rice notes	421,500	422,500
Grand total	10,002,391	9,982,902

At the end of 1932 long-term debts, domestic and foreign, totaled ¥6,397,000,000. The figure at the end of 1933, which was ¥7,443,000,000 showed a gain of ¥1,054,000,000. At the end of 1934 the total was ¥8,651,000,000 gaining ¥1,208,000,000. The gain

during 1935 was therefore ¥929,000,000. In the past three years, therefore, long-term debts have risen ¥3,191,000,000, or approximately ¥89,000,000 a month. Details of various outstanding issues are given below :

Domestic Bonds

5 per cent bonds	1,869,159
Kogo 5 per cent bonds	596,698
First 4 per cent bonds	164,885
Second 4 per cent bonds	94,468
4 per cent bonds	73,443
5 per cent treasury bonds	2,230,761
4½ per cent treasury bonds	715,000
4 per cent treasury bonds	2,663,583
Total	8,208,005

Foreign Bonds

5 per cent sterling bonds	222,669
First 4 per cent sterling bonds	91,337
4 per cent franc bonds	160,989
Third 4 per cent sterling bonds	232,392
6 per cent sterling bonds	222,829
5½ per cent sterling bonds	122,036
5½ per cent dollar bonds	141,298
S.M.R. sterling debentures	73,902
Total	1,372,885
Grand total	9,580,891
Rice notes	421,500

With the prospective maturity of the term of the Washington Naval Treaty at the end of 1937, the warship construction competition threatens to take place and this, if realized, will cost much more expenses. A better situation, however, is unfolding itself in the revenue and with the development of reflation prosperity has

begun to mark economic circles. A natural increase of revenue has come to be registered in the revenue of late. Cries for a change in the deficit-covering finance are gradually heard. Those standing for a changed policy are advancing an opinion that a tax increase should be carried out to prevent inflation from going too far, contending that the interest for bonds be paid out of the ordinary revenue. Financial authorities of the Government, however, are of opinion that the time has not yet ripe for this country to increase taxes, because this is very much feared to nip the economic prosperity in the bud. As far as the present Cabinet is in power, no tax increase will be realized.

#### **e. Development of Insurance**

The growth of financial capitalism is in line with that of capitalism, and the development of the insurance and trust business cannot be ignored in connection with the growth of financial capitalism. Japan, which used to be a backward country in capitalism, has realized a considerable growth in that respect in recent years and this was due to the impetus of financial capitalism. The extent of growth of the life insurance business was so remarkable that within 50 years since its inception contracts rose to more than ¥10,000,000,000. Japan ranks among the "Big Three" insurance countries as it does as one of the "Big Three" Powers of the world, the other two being Great Britain and the United States. In life insurance contracts the United States tops the list with Great Britain second. Japan is a good third. During the Tokugawa period Japan had a system somewhat akin to insurance. It was in 1878 that the modern

insurance system was first introduced into Japan. The Tokyo Marine Insurance Company was founded by the late Viscount Eiichi Shibusawa under Government encouragement. The next company established was the Meiji Life Insurance Company which came into being in 1881. In Japan the business was started with accident insurance, followed by life insurance. This was natural for Japan where shipping had developed over a comparatively long period. Fire insurance was planned in 1878, but it was not until 1889 that the Tokyo Fire Insurance Company, the first of the kind, made its debut. The extent of fire risk was far greater in Japan, where wooden buildings were supreme, than in foreign countries. This fact naturally made the management of fire insurance businesses very difficult. There was a big fire in Yokosuka in the early days of its development. The loss caused to the company by the fire was ¥50,000, which was so serious that the firm was nearly driven bankrupt. How elementary the fire insurance business was at the time of its early development can be seen from this fact.

For several years following the Sino-Japanese War the insurance business made rapid strides. Stimulated by a fever for business enterprises before and after the war, many life insurance companies were founded one after another. Within the brief period from 1890 to 1899, more than 40 insurance companies were founded. While most of the life insurance companies developed favorably, the majority of other insurance companies had to be dissolved, as the result of reckless competition. This may be called a period of terror to insurance in Japan. The situation changed for the better, when the insurance law was enacted in 1900, and the public

knowledge of insurance spread. New kinds of insurance, such as the transportation insurance, fidelity insurance, engine and boiler insurance, injury insurance and others were established before and after the Russo-Japanese War. The list of accident and life insurance companies, which were founded before 1895 and continue doing business up to the present, with their outstanding insurance contracts, follow :

Life Insurance Companies	When founded	Outstanding contracts (¥1,000)
Meiji Life	1881	1,062,005
Teikoku Life	1888	775,648
Japan Life	1889	1,278,490
Taiyo Life	1893	103,156
Yurin Life	1894	117,300
Yasuda Life	1894	363,190
Japan Kyoritsu Life	1894	42,178
Jinji Life	1894	192,274
Nomura Life	1895	216,032

#### Accident Insurance

Tokyo Marine	1878	9,048,152
Tokyo Fire	1888	4,445,495
Meiji Fire	1891	2,967,568
Japan Fire	1892	2,675,973
Teikoku Marine	1893	1,307,856
Osaka Marine	1893	3,036,134

Present Status of Insurance Companies	No. of companies
Life insurance.....	40
Military conscription insurance .....	4
Injury insurance .....	10
Fire insurance.....	50

Marine insurance .....	43
Transportation insurance .....	35
Fidelity insurance .....	1
Engine and boiler insurance .....	1
Automobile insurance .....	9
Burglary insurance.....	5
Glass insurance .....	2 -
Sub-standard insurance.....	1
Group insurance .....	1

Parallel with the spread of knowledge of insurance contracts for all sorts of insurance, especially life insurance, have recorded large increases. In the spring of 1934 the total outstanding contracts of life insurance reached more than ¥10,000,000,000 and thus the country came to occupy the world's third largest position in point of the amount of contracts. The outstanding contracts of post office life insurance have already gone up to ¥2,700,000,000. There are many industries in Japan that have already been raised to an international level, along with the development of Japan's civilization, but the Government has made great sacrifices for what the nation has attained. However, the private life insurance business has realized its present development almost unaided, except that it is under formal supervision of the Government. No Government subsidy has ever been given to any life insurance company, but private companies have successfully fought their way into the present prosperity. Private economy of the nation is much aided by proper financial workings of insurance companies.

## **Foreign Capital Invested in Japanese Industries**

- a. Benefits of Foreign Capital
- b. Inflow of Foreign Capital
- c. Enterprises under Foreign Capital
- d. Important Investment in Stock
- e. Japan is Generous to Foreign Capital

### **a. Benefits of Foreign Capital**

Japan's economy has gone through three stages of development. The development after the Sino-Japanese War was the first period, which was, so to speak, the cradle of Japanese capitalistic economy. The cotton spinning industry, the greatest enterprise of Japan, rose considerably during this period. The second period of development was after the Russo-Japanese War. At this time Japan's economy began to assume the nature of modern capitalism. Industries of many kinds prospered during this period. The industries thus fostered and consolidated made a sudden expansion during the World War. This is what we call the third period of development. All economic systems of Japan became fully modernized at this time. This phenomenal development of Japanese economy is owed chiefly to the power of Japanese capital itself, but is no little influenced by the activity of foreign capital. With the elevation of Japan's international credit following the three wars foreign capital had found its way into this country. Foreign capital invested in Japan falls into two categories, one the capital imported by Japanese public and private

institutions and the other brought by foreigners themselves with the object of investment. In addition, there is a fairly large amount of foreign capital acquired by Japan in connection with its invisible export trade in the shape of shipping and insurance profits as well as remittances by Japanese emigrants abroad. Foreign capital imported into Japan in any form since the Sino-Japanese War, including the war indemnities, is estimated to have totaled about ¥4,000,000,000. The country has been paying back its debts to foreign countries, but the outstanding borrowings from abroad are about ¥2,300,000,000, including those of the Government, public and private bodies. The total of debts is decreasing yearly. Details of these foreign debts are :

Government's debts .....	¥1,464,656,000
Public bodies' debts .....	¥236,633,000
Banks' debts .....	¥12,056,000
Business companies' debts .....	¥484,444,000
Total including others .....	¥2,281,967,000

All these debts were incurred in Great Britain, the United States and other countries by the Japanese Government and private bodies out of sheer necessity. The largest portion was spent to finance the Sino-Japanese and Russo-Japanese Wars.

#### **b. Inflow of Foreign Capital**

Of foreign capital imported into Japan, ¥480,000,000 was raised by means of issuing debentures and, out of this, about ¥380,000,000 was invested in electric enterprises and the remaining amount is that raised in foreign countries by the South Manchuria Railway Company,



the Oriental Development Company and others. Due to the depreciation of the external value of the yen, the payment abroad in connection with these foreign borrowings has increased considerably and the borrowing companies as well as the Government, which is the largest borrower, have found themselves in a plight. The Oriental Development Company has managed to tide over the crisis through the Government help, but the private electric power companies have suffered severely financially by the drop of the yen. Foreigners' investments in Japan fall into two categories. One is enterprises undertaken by foreigners themselves in Japan and the other is business conducted jointly with Japanese. There are about 150 foreign business companies founded in accordance with the Japanese commercial law, with an aggregate capital of about ¥60,000,000. Of these, trading companies lead, numbering 48, commission merchants and agents 19 and manufacturing and sales companies 15. The number is smallest, but the scale is largest for the manufacturing and sales companies. Some of them can be favorably compared with large-scale Japanese companies, but others are small. Scarcely more than 10 foreign companies can rival Japanese industrial concerns. Most of these foreign-managed companies are capitalized at about ¥100,000 each. Even the companies of the purest foreign management and control cannot do without some financial or technical support of Japanese and by co-operation with Japanese on their management they are realizing good business results. It was not until just before the World War that Japanese came to co-operate with foreign capitalists on enterprises carried out in this country. In

this connection, it can be said that the business management ability of Japanese had begun to be recognized by foreigners since that War. Among such large foreign business institutions here are the Rising Sun Petroleum Company, capitalized at ¥10,000,000; the Ford Motor Company of Japan, capitalized at ¥8,000,000; General Motors of Japan, Ltd.; the Victor Talking Machine Company; Karl Zeiss; Ilies Company, and others which Japanese know very well.

### **c. Enterprises under Foreign Capital**

In name they are all independent institution, but, in reality, they are branch offices of their head offices in their respective countries. In addition, there are about 90 foreign companies that maintain branches in Japan. Foreign companies do not see a special need to establish their headquarters in Japan, as the market here is too narrow. It is not known exactly how far these foreign business companies are encroaching upon the commercial field in this country, but foreign insurance companies and banks under business supervision of the Ministry of Commerce and Industry and Ministry of Finance are comparatively well known for their activities in the commercial field of Japan. In Japan there are three foreign life insurance companies and branches of 30 foreign accident insurance companies doing business. They are Canadian Sun Life, Canadian Manufacturers' Life, and New York Life insurance companies. The last-named company is connected with the Morgan interests. Out of 30 accident insurance companies of foreign management, 22 are British. The three life insurance companies have contracts totaling 41,000 in

Japan with an aggregate value of ¥239,000,000. The accident insurance companies are divided into automobile, marine and fire firms. The total value of insurance contracts at the end of 1930 was ¥1,812,000,000, a fairly large amount. Of course, some of the accident insurance contracts are re-insured with Japanese life insurance companies. Therefore, it is not proper to conclude that the Japanese life insurance companies have had their business field taken over to such an extent by the foreign companies. However, the extent of the business done by foreign insurance companies is large enough. Foreign banks have 17 branches in Japan, four in Tokyo, four in Yokohama, two in Osaka, and seven in Kobe. Principal foreign banks with branches here are the National City Bank of New York, Hongkong and Shanghai Banking Corporation, Chartered Bank of India, Australia and China, Franco-Japanese Bank and Dutch Indian Commercial Bank. All of them mainly aim at the exchange business. They have quite large deposits, the total coming to about ¥60,000,000. This amount is only about 10 per cent of ¥600,000,000 of deposits held each by the Mitsui Bank and Mitsubishi Bank.

#### **d. Important Investment in Stocks**

Another important foreign investment is that in stocks. The total number of business companies, joint-stock, limited and unlimited co-partnership in Japan is about 52,000. No exact figure is available as regards the extent of foreign investment in the stocks of business institutions, but, according to the estimates of the Finance Ministry, it was ¥114,000,000 at the end of 1930. The investment consists of the conversion of the value of

patent rights into stocks, a mere co-operation in capital and a mere investment. The capitalistic co-operation of Japanese and foreigners is most widely noticed. The Shibaura Engineering Works, the Fuji Electric Machine Company, the Tokyo Electricity Company (known as G. E. Mazda lamp), the Japan Electricity Company (Westinghouse), the Asahi Kenshoku Kaisha and others are among conspicuous instances. The mere financial co-operation is instanced by the Japan Steel Works, etc. A great many foreigners hold shares in Japanese business institutions. In most cases they have no power of control or management over the companies, of which they are shareholders. In electric machine manufacturing, foreigners wield much influence. The General Electric, the Westinghouse and the Siemens, Schuckert interests are playing important parts in this field, holding an overwhelmingly large influence over the business. In Tokyo Electric. foreign capital investment is 51.8 per cent and in Japan Electricity it is 58.8 per cent. Shibaura Engineering is a combination of the capital of the Mitsui and General Electric interests. The Mitsubishi Electricity Company is a combination of the Mitsubishi and Westinghouse interests. The Fuji Electricity is that of the Furukawa and Siemens, Schuckert interests. In strong current electric machine manufacturing the company co-operates with Shibaura Engineering and enjoys a very substantial field. In weak electric machine making it controls the Dai Nippon Electric Light Lamp, the Daido Electricity and other companies, which are its subsidiary concerns. Japan Electricity is a combination of the Western Electric Company and Japanese capitalists. The Japan Sheet Glass Company consists of the combination of the Sumitomo

interests and American capitalists, but in both cases the foreign influence is not so strong as is evident in the electric machine manufacturing business.

#### **e. Japan is Generous to Foreign Capital**

The Japan Steel Works is the only company consisting of a mere joint investment of Japanese and foreigners, while all other foreign concerns are either based on the conversion of patent rights into the value of stocks or on the offering of technique by foreigners. This company is a combination of the Mitsui interests, controlling Hokkaido Colliery and Steamship, and the Armstrong and Vickers interests of Great Britain. The Mitsuis hold 74 per cent of the total shares, while the combined shares of the Armstrong and Vickers interests are only 24 per cent. Many foreigners are investing their money in Japanese businesses, such as gas, sugar refining, insurance and others. In recent years they are beginning to increase their investment in spinning and electric power industries, which form the central and most consolidated business in this country. The United States has by far the largest investment in Japan. In foreign countries great efforts are usually taken not to have the controlling power of their industries acquired by alien people because of their investment, but in Japan no such restriction is placed on ordinary business companies, except that no foreigner can become a shareholder of a special bank, special company or a company subsidized by the Government. Japan is thus generous to foreign investment and naturally it is very easy for foreign capitalists or investors to come in for shares in Japanese major industries.

## **Japan-Manchoukuo Economic Relations**

- a. Japan-Manchoukuo Economic Relations
- b. The Past and Present of Japan-Manchoukuo Economic Relations
- c. Exploitation of Financial Resources and Industrial Development of Manchoukuo
- d. Future of Japan-Manchoukuo Economic Relations
- e. The South Manchuria Railway Company, Ltd.
- f. Railway Transportation
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### **a. Japan-Manchoukuo Economic Relations**

One thing that must not be lost sight of in connection with the Japan-Manchoukuo economic relations will be the independence of Manchuria and the subsequent constructive policy of that country, because Manchuria following the Manchurian Incident is an independent country, pure and simple, which is an entirely different one from Manchuria before the Incident in the political and economic relations. Naturally, the guiding policy of the State construction of Manchuria at present is fundamentally different from that of Manchuria used to do. In other words, the independence of Manchoukuo has marked a turning point in the economic relations of Japan and Manchoukuo.

### **Development from Independence into State Foundation**

The founding of a new State of Manchoukuo in the

four Eastern Provinces of Manchuria, which lay under rule of the Chinese militarist regime, on March 1, 1932, in the wake of the Mukden Incident of September 18, 1931, through the unified efforts 30,000,000 people in that part of the world and the support of her friendly neighbor, Japan, has really worked wonders to the status of the international situation in the Far East. Covering a vast expanse of territory about 460,000 square miles which is larger than France, Germany, Sitzerland and Austria combined, extending from the Great Wall to the Siberian border, Manchoukuo has every prospect of becoming a prosperous Empire. It is not our object to refer to the circumstances leading to the independence, but the declaration of its independence on March 1, 1932, and Japan's recognition given to its independence on September 1 of the same year and the simultaneous signing of a Protocol between the two Powers as well as Manchoukuo's announcement of the resume on its economic construction and the introduction of monarchical regime with Chief Executive Pu Yi (the last of the emperors of the Manchou Dynasty, named Hsuan Tung) as its Emperor in 1934 must be mentioned here. After going through these historical stages Manchoukuo has not only perfectly got rid of the old Northeastern regime under control of the National Government, Nanking, but has been brought absolutely closer to Japan. The present national policy of Manchoukuo is in striking contrast to the days of Chang Hsueh-liang whose policy ever conflicted with Japan. To be more concrete on this signing of Japan-Manchoukuo Protocol and the resume of Manchoukuo's economic construction. The Protocol provides for the respect of mutual territorial right, the assurance and

respect of Sino-Japanese treaties, agreements and all rights and interest to which Japan is entitled and the stationing of Japanese troops in Manchuria for the joint defense of that country, thereby intending to perpetuate the peace of the Orient. The Japan-Manchoukuo joint defense is understood as the fundamental substance of the Protocol. With the signing of this Protocol the peace and order of Manchoukuo has begun to be restored gradually, because this had proved the fundamental enterprise and a matter of absolute necessity for the founding of an Empire. The resume of Manchoukuo's economic construction announced by it involves the fundamental policy on the economic construction, managed economy, perfection of transportation, agricultural development, encouragement of mining industry, financial readjustment and perfection, commercial prosperity, improvement of private economy and other necessary matters. The opening chapter of the resume says: "Manchoukuo has under contemplation a plan to establish law, politics, coinage and financial system and peace at home and thicken its friendly relations with the neighboring Powers to elevate its international position and materialize its fundamental principle to bring peace to the people following the Heavenly Way." In the second paragraph the following four great items are pointed out for the development of national economy, the promotion of public welfare and the contribution to the world economy with the ultimate object of building an ideal State:

- (1) Manchoukuo bases its policy on the promotion of interest of all its people and encourages the development of resources and industry and excludes a policy such as the interest is monopolized by a limited number of



capitalists. The economic construction on the policy of promoting the interest of all people is given the utmost significance.

(2) Manchoukuo encourages the development of all resources in it to advantage and enforce managed economy on major industries for a wholesale development of all.

(3) As regards the development of economic resources, Manchoukuo seeks capital from the rest of the world in accordance with the spirit of the Open Door and Equal Opportunity and likes to invite technique and experiences of foreign countries to utilize them to the utmost advantage.

(4) Manchoukuo will place the center of economic gravity on Japan to achieve the efficient rationalization of economy in East Asia, considering Japan-Manchoukuo economic inter-dependence, and thereby bringing closer the mutual relations of the two countries. All these, in a nutshell, are the universalization of profit, the State control of important industries or control of capitalism and the open door and equal opportunity, aimed at the Japan-Manchoukuo co-operation. In spite of a brief period following the founding of Manchoukuo, these guiding principles will serve as indicators to the development of Manchoukuo. In this sense, the resume bears a very serious nature. Japan is ever prepared to provide political and economic assistance for Manchoukuo and this is the reason why the two Powers are bound to rise and fall together. Such relations do not only form the fundamental element for the growth of Manchoukuo, but mean a grave significance to the future destiny of Japan. The significance of Japan-Manchoukuo industrial and economic relations lies in these.

### **b. The Past and Present of Japan-Manchoukuo Economic Relations**

The Japan-Manchoukuo economic relations will be explained here on their status before and after the Manchurian Incident. Manchoukuo has a dimension expanding 1,416,000 square kilometers and a population of 29,600,000 in 4,183,000 families. Of this population, the Manchurian Chinese occupy the absolute majority of 28,900,000, the Japanese including Koreans 570,000 and the remaining 140,000 are other nationals. The Kwantung Leased Territory and South Manchuria Railway area, which lie under Japan's administrative jurisdiction, have a dimension of 3,752 square kilometers and a population of about 1,320,000 (of which 1,050,000 are Manchoukuo Chinese, 272,000 Japanese and 2,000 other foreign nationals). These districts are most closely related to Manchoukuo economically and otherwise. It was not until after the Russo-Japanese War that Japan and Manchuria had been brought particularly closely. Japan acquired the leased territory and the railway area by virtue of the Portsmouth Treaty concluded following the termination of the war. For a long period of about 26 years following the war until the outbreak of the Manchurian Incident Japan's relations with Manchuria had remained in specially close situation. Year by year their relations increased the degree of intimacy. Japan's rights and interest obtained as the result of bloodshed had to be duly protected. Enterprises were launched following investment and industries were encouraged and promoted to the contribution of economic development. The policy of aggression of the Far East by the Tsarist

imperialism collapsed. Manchuria was placed under the regime of Marshal Chang Tso-lin and remained in comparative peace for some years. During the intervening period the development of Japan in Manchuria centered on the activity of the South Manchuria Railway Company. Outside the leased territory and railway area the development of Japan remained rather insignificant, but it cannot be denied that the originality and improvement of Japan's technique and management had gone the length of having contributed directly and indirectly the industrial progress of Manchuria, which is an agricultural country at the foundation. The Lytton Report submitted to the League of Nations mentions that Japan's total investments in Manchuria both the Government and private sources, till the outbreak of the Manchuria Incident amounted to about ¥2,000,000,000. At the end of March, 1931, Japan's total investments there amounted to ¥1,716,000,000 consisting of ¥1,603,000,000 those connected with the South Manchuria Railway Company, ¥98,000,000 with the Government, and ¥554,000,000 with Japanese corporations and individuals. However, the Dairen Chamber of Commerce and Industry estimates the total investments up to the time immediately previous to the Manchurian Incident at about ¥2,000,000,000. Of all nations having investments in Manchuria, Japan claims the largest amount, the Soviet Union comes second and Great Britain, the United States, Germany, France, Scandinavian countries and Czechoslovakia follow in the order mentioned. This is recognized even in the Lytton Report. Baron Seinosuke Goh, president of the Japan-Manchoukuo Business Society, made a brief but pithy explanation on Japan-Manchoukuo economic relations in its

report issued in March, 1935, as follows: "Japan-Manchoukuo economic relations stand on the inseparably close basis of mutual dependence. The mutual dependence means the two countries are economically bound to rise and fall together. I am not saying this in an abstract sense. The past history shows it. Japan has no less contributed to the economic development of Manchuria for the last 30 years. Out of the Powers' total investments involving more than ¥2,000,000,000 in Manchuria for the period intervening the ending of the Russo-Japanese War and the outbreak of the Manchurian Incident, about 80 per cent was Japan's investment. It also should be mentioned that 46 per cent of the average five years' exports from Manchuria before the outbreak of the Manchurian Incident was for those to Japan and that 43 per cent of the same years' imports into Manchuria was for those from Japan. These figures speak volumes how far Japan had contributed to the economic development of Manchuria. To go into details, 37 per cent of the total railway mileage in Manchuria belongs to Japan, and the part of Dairen under Japan's rule handles 80 per cent of the whole foreign trade volume of Manchuria. In the realms of other enterprises, such as communications, mining, industry and others, also Japan had made a great contribution through monetary investments, technique and management. Japan offers itself as a great consuming market for natural products of Manchuria thus developed by Japan. For example, 27 per cent of the total exports of Manchurian beans used to be consumed in Japan and 68 per cent of the total exports of its bean cake is also demanded in this country. Of the total coal production in Manchuria, 58 per cent

is consumed in Japan and 89 per cent of iron products there is exported to Japan. Japan supplies the largest amount of daily necessities of cheap price to Manchuria. Of various imports into Manchuria, Japan supplies 69 per cent of sugar, 39 per cent of chemicals and drugs, 51 per cent of machinery and 45 per cent of paper." As regards Japan-Manchoukuo economic relations following the Manchurian Incident, strenuous efforts have been made by both countries to emphasize the need of their economic relations. The situation has developed into close relations so that one country cannot go without the other, but Manchoukuo's economic relations with countries other than Japan are not at all insignificant. Manchoukuo still remains stick to its avowed policy of open door as ever before. The Mission of British Industries, headed by Lord Barnby, recently inspected Manchoukuo, with the result that the Mission in its report recognizes the need of maintaining close economic relations between Great Britain and Manchoukuo. How much money Japan has invested in Manchuria since the Manchurian Incident of 1931 will be interesting to know. According to the Ministry of Overseas Affairs, the total investments for three years following the incident amounted to ¥480,531,000 (¥98,957,000 for 1932, ¥195,608,000 for 1933 and ¥185,966,000 for 1934). Of this total, investments connected with the South Manchuria Railway Company and other Japanese concerns in the shape of payment in shares amounted to ¥203,000,000, or 42 per cent, those in the shape of debentures and loans amounted to ¥217,000,000, or 45 per cent, and those for others ¥60,000,000, or 13 per cent. A huge amount of money had been invested in the perfection and

expansion of business of the South Manchuria Railway Company. Since March 1, 1933, the railway company has assumed the control and management of all State railways of Manchoukuo at the request of the Manchoukuo Government. Other kinds of Japan's investments consist of ¥45,900,000, or 32 per cent, in industries, ¥29,850,000, or 20 per cent, in agriculture, mining and forestry, ¥29,120,000, or 20 per cent, in transportation and communications, ¥7,690,000, or 5 per cent, in commerce, ¥3,520,000, or 2 per cent, in finance, and ¥27,000,000, or 16 per cent, in others, making the total ¥143,000,000. This reveals that 32 per cent of the investments in these new enterprises is for industrial purposes. Manchoukuo which has been regarded as an agricultural country for many years is now beginning to assume the nature of industrial country since the Manchurian Incident. This is an important fact to see the new aspect of Manchoukuo in the light of its economic relations with Japan. Referring to loans and bonds of Manchoukuo, both the Mitsui and Mitsubishi interests advanced a loan of ¥10,000,000 each to Manchoukuo shortly after its independence. The money was included into the reserve funds of the Central Bank of Manchou and this had contributed a great deal to the unification and stabilization of currency in Manchoukuo. The Manchoukuo Government had also raised the so-called Foundation Bonds and a half of this was devoted to the subjugation of bandits and other measures necessary for the restoration in that country and the remaining half mainly to road building. Other bonds floated by that Government had been used for the capital construction of Hsinking including the building of Government edifices

and other institutions. In the realm of foreign trade with reference to the Japan-Manchoukuo relations, an interesting tendency has been observed on it since 1932. Not only the trade of Manchoukuo proper, but, that of the Kwantung Leased Territory must be included into the trade relations with Japan. Exports of Japanese goods to Manchoukuo, including the Kwantung Leased Territory, for 1932 following the outbreak of the Manchurian Incident amounted to ¥146,000,000, but in the following year the trade volume was more than a double the 1932 figure and that for 1934 it was 170 per cent as large as that for 1932. The same was true of the import trade. Imports from Manchoukuo for 1932 amounted to ¥128,000,000, but gained to ¥191,000,000, in 1933. These speak for the increased trade intimacy between the two countries. Japan's export trade as a whole for 1932 its trade relations with Manchoukuo for 1932 occupied 10 per cent, but in the following year the ratio increased to 19 per cent. An increasing trend also was noted on the import trade between the two countries, although their ratios were different. With the progress of construction work in Manchoukuo in connection with the perfection of outward shape of the new State, it was necessary for Manchoukuo to buy more from Japan than the latter buys from the former. Manchoukuo has not yet attained a replenished industrial condition such as to manufacture enough articles to sell them to Japan. Manchoukuo has been an agricultural country from the start and is yet far from being called an industrial country. In the future, however, Manchoukuo must be led to flourish industrially on the basis that Japan imports industrial materials from

Manchoukuo and in return Manchoukuo gets industrial manufactures from Japan. If the situation is shaped on this way, the industrial relations of Japan and Manchoukuo can be solved rather easily. Be that as it may, exports of Japanese goods to Manchoukuo (except the Kwantung Leased Territory) for 1934 consisted of cotton textiles totaling ¥40,000,000; wheat flour ¥9,000,000; cotton yarn ¥3,600,000; machines and parts ¥3,300,000; sugar; vegetables; fruits; metal products; enameled wares; paper; lumber; drugs; rayon textiles; explosives; hats; and copper. Imports of Manchoukuo goods into Japan for the same year were soya beans worth ¥41,000,000; bean cake ¥31,000,000; bean cake ¥31,000,000; coal ¥30,000,000; pig iron ¥19,000,000; indigs; leather; sesame seed; animals' oil; flax; minerals; and others.

### **c. Exploitation of Financial Resources and Industrial Development of Manchoukuo**

Manchoukuo has thus shaped itself into a perfect independence after having gone through such stages. How the country will go along the future path of development in a close touch with Japan politically and economically is a matter deserved of study. It is not in the realm of our object to study the situation from a political side. Ours is to see the future path Manchoukuo is to tread economically with Japan. It is a matter of course that a great amount of money is necessary for Japan to build up Manchoukuo in a manner as to make it possible to be economically independent. Materials also must be supplied to it in a liberal amount. Fears are entertained whether or not the industry of Man-



choukuo, when it attains a perfect stage, will conflict that of Japan. The consolidation of the Japan-Manchoukuo economic bloc is emphasized now, but will it not eventually create a great trouble on the economic interest of the two countries? Unless this point is solved without conflict on each side, the result will be that the two will finally separate economically. Unlike Korea or Formosa, Manchoukuo is an independent country and, no matter how close its material relations with Japan may be, it will be unavoidable that their economic conflict will create something that may prove very serious to their national interest. This situation must be carefully studied by authorities of the two countries. The success of this economic bloc, therefore, must result in the perpetuation of economic interest mutually advantageous without any conflict on both sides. It is not absolutely that no trouble has ever been related between the interest of Japanese and Manchoukuo industries since the founding of the new State. Nay, it will be quite possible that troubles of a more serious nature will occur in the future between industries of the two countries, when Manchoukuo is destined to flourish industrially. Unless the future difficult stages are passed, no Japan-Manchoukuo economic bloc and their economic interdependence can be truly consolidated. Let us be more concrete on the matter. So long as Manchoukuo remains as an agricultural country, nothing that conflicts the interest of Japan will take place, but, its industrial development, which has already begun to assert itself, is feared to cause more or less trouble to Japan. No matter how complete its railway facility may be and how satisfactory the air service or other transportation become, this will not stand

against the industrial interest of Japan. Increased crops of farm products, such as beans, Kaoliang, bean cake, bean oil and others, will be necessary for Japan. The same will be true of the lumbering, live-stock farming and aquatic industry. If enough pulp is produced there and sufficient supply of wool and leather can be had from Manchoukuo, this will obviate the necessity of Japan to import such goods from abroad, because the country can get them all more easily and cheaply from the neighbor. The more Manchoukuo produces it, the more it becomes advantageous for Japan. However, it will be a matter of remote possibility that Manchoukuo is able to liberally supply these to Japan. Manchoukuo has 2,640,000 sheep and 15,135,000,000 koku of timber. The mineral resources of Manchoukuo also must be mentioned. Hoardings of ferro ores there are estimated at 1,222,000,000 metric tons, those of coal 4,804,000,000 metric tons, those of magnesite 384,000,000 metric tons, those of oil shales 5,400,000 metric tons and those of fire-proof clay 90,000,000 metric tons. Magnesite is material for magnesium and oil shales materials for manufacturing oil. As the result of experiment for many years, the manufacturing of these materials into necessities has already been commercialized. The same is true of aluminum manufacturing out of clay. These materials will contribute a great deal to the industrial development of this country. The production of ferro ores amounted to 1,100,000 metric tons in Manchoukuo for 1933; 320,000 metric tons in Japan proper and 520,000 metric tons in Korea. Pig iron thus produced out of ores are supplied to Japan. Imports of pig iron into Japan during 1933 amounted to 640,000 metric tons, of which 450,000

metric tons, or 70 per cent, were imported from Manchoukuo. Japan is importing the majority of ferro ores from the Straits Settlements and China. In this respect, Manchoukuo is a very important place for Japan. In spite of its low grade ores, Manchoukuo is now able to manufacture much iron out of them through technical improvement. All these serve as factors for great advantage to Japan and naturally will have no cause for trouble with Japan. On the contrary, however, there are many sore spots in Manchoukuo that are feared to conflict the interest of the Japanese side. Coal is an example of it. Out of the estimated hoarding totaling 4,804,000,000 metric tons, Manchoukuo produces about 7,000,000 metric tons a year. In 1933 imports of Manchurian coal into Japan amounted to 2,440,000 metric tons. In the same year the coal output of Japan amounted to 32,520,000 metric tons, and there is no large room for Manchurian coal to be imported into here more than that. Manchoukuo can produce coal to meet the demand in Japan, if Japan wants to, but the Japanese coal miners do not welcome Manchurian coal for fear their field be taken by it and are uniting themselves against more imports of coal from Manchoukuo. The import quantity of Fushun coal into Japan has been limited since 1925 as the result of an agreement between the South Manchuria Railway Company, who operates the Fushun collieries, and the Japan Coal Association. However, many other coal mining companies have been established since the founding of Manchoukuo and coal thus produced by them may find its way into Japan, when a trouble with Japanese coal miners is feared to arise. Sulphate of ammonia is another example. The

Manchuria Chemical Industry Company, founded by the same railway company, in Dairen, will manufacture 180,000 tons of ammonium sulphate a year. If these products are imported into Japan, they will aggravate the domestic market which is becoming worse with surplus supply and bring pressure to bear on the Japanese ammoniate market. Manchoukuo produces a large amount of salt. The soda industry promises to prosper there on the basis of salt. This also menaces the interest of soda industrialists at home. The same sort of trouble is in embryo with industries such as cement, beer, wheat flour and others. As far as the industrial overproduction in Manchoukuo is intended for solution by means of disposal in Japan, this will surely bring trouble and misfortune to the Japan-Manchoukuo economic control policy.

#### **d. Future of Japan-Manchoukuo Economic Relations**

The path of the Japan-Manchoukuo economic control thus is not strewn with roses and lilies, but will be a thorny one. So far the situation has not developed in a very serious way against the policy. The establishment of specially favored tariff on imports from Manchoukuo is contemplated in some quarters, but Foreign Minister Hirota thinks it premature for Japan to do it. Manchoukuo, therefore, must seek its market for its products in China and other countries, giving up its policy to depend solely upon Japan for their disposal. It will be ideal for the Japan-Manchoukuo economic control to base its fundamental policy on that Manchoukuo should supply Japan its industrial materials only and Japan should manufacture

articles with these materials, exporting them to China and other large consuming countries. For the building of Manchoukuo on a firmly consolidated basis Japan must mobilize all of its efforts, such as its capital, scientific knowledge, experience and others. The prosperity of East Asia will thus be brought about and Japan will reap the fruits of its great endeavors on the Japan-Manchoukuo economic control after surmounting difficulties. It is Japan's duty to contribute to the world by a successful realization of this control policy. The Chinese Eastern Railway (North Manchuria Railway) was already sold to Manchoukuo by the Soviet Union after a prolonged negotiation for 20 months and the signing of sales agreement took place on March 23rd, 1935. This had removed one of the most serious international hindrances confronting Manchoukuo and Soviet Union. Manchoukuo's economic construction will be pushed on quickly with the transfer of the railway. The visit of His Majesty the Emperor of Manchoukuo to Japan in the spring of 1935 had closely bound together the friendly relations of the two Empires.

#### **e. The South Manchuria Railway Company, Ltd.**

The South Manchuria Railway Company, Ltd. is generally known to foreigners by its abbreviation S.M.R. The rail track used to be owned by Russia, but, as the result of the Portsmouth Treaty concluded on September 5, 1905, the southern section between Changchun (now Hsinking) and Port Arthur and its branch lines together with all rights, privileges, property and collieries were ceded to Japan. By virtue of the Imperial ordinance,

the South Manchuria Railway Company was founded and opened to business on April 1, 1907. The company has its head office in Dairen and its branch in Tokyo.

### Business and Status

In conformity with the orders of the Japanese Government, the S.M.R. is charged with a mission to carry on a railway transportation and, as its subsidiary enterprises, warehousing, rolling stock, collieries, port and harbor management. It also undertakes business concerning the management of land and building, public works, education, hygienic welfare and various kinds of industry in the railway area, and extends the sphere of its business to a large-scale economic investigation of East Asia to contribute to the promotion of interest of various enterprises under its direct and indirect control and management. Not only these, but the company takes charge of a great variety of other enterprises such as the iron manufacturing, gas, electricity, ceramics, hotel, dockyard, coal, import guild, lumbering, transport, public works and many others. The S.M.R. has also placed under its control and management the Manchoukuo State railways since 1933 and is also given privilege to construct new railway lines on contract. In addition, it is operating the North Korean Railway north of Seishin and has placed three north Korean ports, namely, Rashin, Seishin and Yuki, under its management since October, 1933. At first, the company was capitalized at ¥200,000,000 at the time of its founding, but its present capitalization is ¥800,000,000, a half of which is owned by the Japanese Government. The company's directorate consists of the president, vice-president, several directors and

auditors. Both the president and vice-president are appointed by the Government on Imperial approval and the directors are appointed by the Government from among shareholders possessing more than 100 shares. The auditors are nominated by shareholders from among themselves. The term of office of the president and vice-president is five years each, that of directors four years and that of auditors three years. The S.M.R. is investing in about 70 companies of various categories, such as industry, trading, mining, agriculture, transportation, warehousing, electricity, gas, trust, financing, insurance and many other kinds of public utility. The company is placed under supervision of the Manchurian Affairs Bureau under direct control of the Premier and also under the Ambassador in Manchoukuo, whose business on the supervision is looked after by the Director of the Kwantung Bureau. As was stated before, the Manchurian Railway was transferred to Japan's management, as the result of the Portsmouth Treaty, but the term of retrocession of the Dairen-Hsinking main line and its branch lines expires in 2002 A.D. and that of the Mukden-Antung line in 2007 A.D. Fourteen presidents, including the incumbent, Mr. Yosuke Matsuoka, have been appointed so far since its founding. They are Count Shimpei Goto (the late), Mr. Zeko Nakamura (the late), Dr. Ryutaro Nomura, Lieutenant-General Baron Yujiro Nakamura (the late), Dr. Shinbei Kunizawa, Dr. Ryutaro Nomura, Mr. Senkichiro Hayakawa (the late), Mr. Takejiro Kawamura, Mr. Hanichiro Yasuhiro, Mr. Jotaro Yamamoto, Dr. Mitsugu Sengoku (the late), Count Yasuya Uchida, Count Hirotarō Hayashi and Mr. Yosuke Matsuoka.

### **f. Railway Transportation**

The railway starts at the Dairen wharf and goes northward, connecting at Mukden with the Mukden-Shanhaikwan Railway and Mukden-Hailung Railway, both of the State of Manchoukuo, at Supingkai with the Supingkai-Taonan Railway, also of Manchoukuo, and at Hsinking with the Hsinking-Tumen Railway and North Manchuria Railway (Chinese Eastern Railway) also of Manchoukuo. This is the main line of the South Manchuria Railway between Dairen and Hsinking. The Mukden-Antung line is another main line and connects at Antung with the Korean Government-General railway. Besides, there are branch lines to Port Arthur (Ryojun), Kanchintzu, Yingkow (Newchwang), Yentai colliery, Fushun colliery and Yuhsutai. The total mileage is 11,306 kilometers, or about 700 miles. The gauge is a standard one throughout and is 4 feet and  $8\frac{1}{2}$  inches. The S.M.R. forms a trunk line of the world's railway highways. A proposal for placing the railway under international control, because of its important nature, was once made by the United States shortly after the founding of the railways company. Alive to its great mission as transport medium in East Asia, the company is ever paying its great attention to leave no stone unturned to meet the satisfaction of travelers over its line and is considered as a model railway in respect of fulfilling its mission.

### **g. Marine Business**

The railway company is undertaking the port and harbor enterprise. The harbor equipment at Dairen and its wharves are remarkably excellent. About 80 per cent



of Manchoukuo's foreign trade totaling over ¥1,000,000,000 is carried on through this port. Dairen duly claims as the best equipped of all trade ports in the East. The total berthing front on the Dairen wharves is more than 5,000 meters. The wharves allow 38 ships each of 5,000 tons to be berthed at one time and have 72 warehouses and goods sheds capable of accommodating 480,000 tons of goods. In addition, there are on the wharves 14 tanks, cereal drying equipment, spacious open storing ground for cereals and other facilities necessary for harbor work. The railway company also has necessary cargo working equipment in Newchwang, Port Arthur, Antung, Kanchintzu and Shanghai as well as Kawasaki and Osaka.

#### **h. Collieries**

The Fushun and Yentai collieries are operated by the railway company as its subsidiary business. Fushun is located at about 20 miles east of Mukden in Mukden Province. The mine-lots cover an extensive of 60,165 square kilometers and the coal seam extends 10 miles. The seam is 23-127 meters deep. Coal produced there has a strong calorific power of 7,000 and is of a bituminous one, containing much percentage of nitrogen and less percentage of line. The amount of hoarding is estimated at about 950,000,000 English tons, of which 92,000,000 tons have already been mined. Average yearly output is about 7,000,000 tons. The open-cut operation there is well-known. Yentai Colliery is also worked by the railway company. It is located at nine miles off the railway station of Yentai and the mine area is 70,008 square kilometers. Its coal is semi-anthracite and

the deposits are estimated at 20,000,000 tons, of which 3,000,000 tons have been mined so far. Fushun Colliery also undertakes subsidiary enterprises, such as Mond gas, tar distillation, pitch and coke, sulphuric acid, hydrogen and nitrogen industries, machine and tool industry, public works, waterworks, electric trolley and shale oil industry.

### **i. Local Management**

The company carries on various kinds of business in its railway area. The real estate business and city construction are looked after by it. Necessary business for social affairs, hygienic welfare, education and self-defense guard also are done. That once desolate towns such as Liayang, Mukden, Hsinking, Newchwang and Antung have now become modernly-equipped cities in recent years is utterly due to the strenuous efforts of the company. The railway company also maintains 13 hospitals in Dairen and other leading railway towns, 26 kindergartens, 35 primary schools, 6 middle schools, 4 girls' schools, one special school, one university, 10 Chinese primary schools, one Japanese language school, 34 technical continuation schools, 13 housekeeping schools, one commercial school, 6 agricultural, handicraft and commercial apprentice schools, 6 avocational education institutes and 37 schools for exclusive education for Koreans and Chinese. For all these educational institutions the railway company gives annual subsidy. The railway company is co-operating with the Japanese troops, gendarmes, police and firebrigades for self-defense of railway area against bandit raids, fire and other emergencies. Agricultural as well as commercial and industrial enterprises are also done by the company.

## **The Japan Universal Exposition, Tokyo, 1940,**

**in Celebration of 2,600th Anniversary of the Accession to the Throne of the First Emperor Jimmu.**

- a. Circumstance Leading to Organization of Japan Universal Exposition Society
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### **a. Circumstance Leading to Organization of Japan Universal Exposition Society**

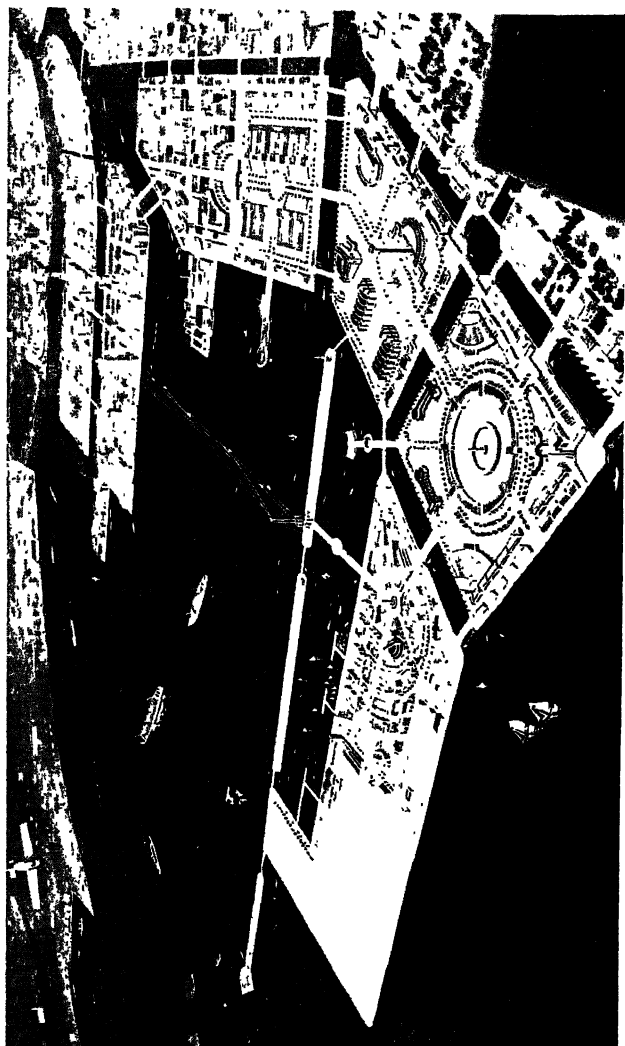
It is a great pride and hearty joy of the Japanese nation that it welcomes the 2,600th anniversary of the founding of the Empire in 1940. A nation-wide celebration will be promoted to commemorate the happy event in diverse shapes, but the greatest of all will be the Grand Universal Exposition to be held in Tokyo for a fairly long period. This enterprise of peaceful and international nature has been contemplated by Japan since about 1900. This Society has championed the movement since then and it came to pass that in 1934 this movement culminated in the organization of the Japan Universal Exposition Society with the Tokyo City Office as its mainstay. Mayor Torataro Ushizuka of Tokyo was nominated President of the Society and Mayor Ichiro Onishi of Yokohama and Mr. Seki Hoshino, president of the Tokyo Businessmen's Association and that of the Exposition Club as vice-presidents. The plan and

estimates of the promotion are mentioned elsewhere. The Society is likely to be reorganized into a larger-scale one under control of a committee specially established for looking after the whole affairs of the Exposition under direct supervision of the Government, without whose support such a great enterprise is not expected to fulfil its mission. A plan is also advanced by the interested parties to extend to foreign visitors of the Exposition a hotel accommodation as comfortable as possible. The Board of Tourist Industry of the Government, for example, is exerting itself hard to make their stay in this country a really enjoyable one.

**b. Declaration of Tokyo Mayor, President of  
the Japan Universal Exposition Society**

It affords me a great pleasure in taking this opportunity to announce here a general outline of the plan and estimates of the Universal Exposition to be held in the region with Tokyo, the capital of Japan, as its center in 1940, the year that falls on the 2,600th anniversary of the accession of the first Emperor Jimmu to the Throne. Methinks, the stride and development of the Japanese Empire since the Meiji Restoration have been a source of amazement to the world. During this space of time the country has got the fruits of science and civilization of Europe and America on the one hand and displayed the essentials of her own spiritual culture on the other, devoting herself as the dominant power of East Asia to the development of the whole Asia with its eight hundred million population and also secured her footing firmly among the Powers as a great rising nation. The national strength of Japan has advanced to such an extent that

the country had emerged long before from a period of foreign imitation and blind following and is on the apex of prosperity based on her own creation. It is a happy idea supported unanimously by all the people of Japan that she is going to hold a grand exposition to commemorate the great exploits of the Empire founding by Jimmu and to make that event a chance to glorify more the Imperial power and to promote the national fortune. To this significant undertaking Japan will invite all Powers of the world and take this opportunity to exhibit all creamy products of Japanese science, applied art, economy, industry and all, comparing these with those of other countries, thereby contributing to the study of the real status of the world and introducing the essence of the Japanese culture to the world at large. Japan has so far participated in 46 large and small expositions in Europe and America from 1873, when the Vienna International Exposition was held, to 1933, when A Century of Progress International Exposition at Chicago was held, and has spent nearly ¥15,000,000 or so for the participation, thereby making known the real condition of Japanese culture and industry and contributing a great deal to the progress and development of national destiny. However, it is a matter for great regrets that not a single international exposition has ever been promoted in Japan or any other Oriental countries so far. There was a plan in 1912 for holding such an exposition under the auspices of the Japanese Government, but unfortunately, due to a great retrenchment of State expenditures, it was laid aside and since then the matter has remained untouched up to the present. It is a matter for great favor indeed that the time has come for Japan to



Bird's-eye-view of the architect's design of the proposed site of  
the Japan Universal Exposition facing Tokyo Bay



hold a large-scale international exposition in 1940 in celebration of the 2,600th anniversary of the opening of the Imperial Era. There is no need for reiteration that the coming great International Exposition will bring an epochal contribution to the world culture by the contact of the Oriental and Occidental civilization and the welding of their culture and will give benefit to the co-operation of the Eastern and Western races and international friendship by means of mutual understanding based on the real situation. Some people contend that the present is a moment of internal and international crisis confronting Japan and that on this reason no such an international affair of peace promoting nature should be undertaken. International relations change according to the time and situation, but it is an iron rule of civilization that any kind of peace-promoting undertakings based on mutual love of humanity cannot be shaken throughout time and places. It is not a magnanimity of great nation on a sound development to ignore an important matter of international co-operation because of the moment of crisis. There can be no doubt about that all friendly Powers of the world will gladly propose themselves to participate in the coming Exposition at Japan's invitation, considering the fact that this country had very often taken part in the expositions promoted in their countries and contributed herself to the attainment of the object of their events. The paramount object of the Japan Universal Exposition is to commemorate the Empire foundation 2,600 years ago and to emphasize this great and eternal achievement and, availing of this opportunity, to develop the world industry, to weld the Eastern and Western civilization and to promote the



international peace. Not only these but the coming event has important missions to enhance the national strength of the Empire to stimulate the rise of the new Orient and to do lots of good for the prosperity of the world at large. Naturally, the Exposition will be promoted on a very extensive scale, entirely different from any kind of domestic expositions ever held in the past. It will not be inferior to any international expositions in Europe and America, but probably will be grander scaled in many respects. It is regrettable that, some people who do not know the idea and scale on which the authorities concerned are intending to carry on the event in earnest, seem to look on it as a mere fête or as a backward and insignificant event as they accustomed to see small-scale expositions that were ever held in this country. It is hoped that people remove their old impression on the past expositions and understand the importance of the coming event on a new idea. In recognition of the momentum of the Exposition in this way, the Japan Universal Exposition Society has been established under co-operation of the Tokyo Prefectural Government, Tokyo City Office, Tokyo Chamber of Commerce and Industry, Tokyo Business Guild Federation, Japan Industry Society, Exposition Club, Kanagawa Prefectural Government, Yokohama City Office, Yokohama Chamber of Commerce and Industry and Yokohama Business Guild Federation. The general outline of the plan and estimates of the Exposition has been formulated by this Society. In consultation with fellow-minded persons and through their support the Society expects a successful fulfilment of this great enterprise. It leaves only a few years before the Exposition is opened, but within this

brief period the Society has many complex and diversified matters to do in preparation for its opening. It devolves upon a great responsibility of the Society authorities to lead it to a successful opening. It is an earnest and sincere desire of the Society in this respect to enlist a great support of the persons having understanding on this enterprise.

### **c. Plans and Estimates**

#### **Plans and Estimates of the Exposition**

The Japan Universal Exposition in commemoration of the 2,600th Anniversary of the Accession of the Emperor Jimmu (briefly, Jimmu Accession 2,600th Year Commemorative Japan Universal Exposition) has in its object to celebrate the great event and to memorize the development of the world industry, welding of the Eastern and Western civilization, and promotion of the international peace under the auspices of the Japan Universal Exposition Society, being supported by the Government, the Hokkaido Government, prefectural governments, city offices, and public bodies of various kinds. The session opens from March 15th in the 15th year of the Showa Era to August 31st (2,600th year of the opening of the Imperial Era and 1940 A.D.) for a period of 170 days.

The sites of Exposition are mainly in Tokyo City and a part in Yokohama City with a total area of 3,300,000 square meters (about 1,000,000 tsubo).

The exhibition halls and annexes have the total area 177,500 square meters (63,500 tsubo).

## Exhibition Halls

## 1. Empire Founding Commemorative Hall

The Empire Founding Commemorative Hall will form the mainstay of all the exhibition halls with an aggregate area of 132,700 square meters. Japan's development since the founding of the Empire will be illustrated here historically by the exhibition of paintings, relics and various other matters for reference, including those connected with music and theatricals, with the object of contributing to the display and enhancement of Japan Spirit. This Hall will be made a commemorative object for the collection of things demonstrative of the highest culture of Japan. An assembly hall will be kept in this building.

## 2. History and Custom Hall

The development and change of the world culture will be shown by models, dolls and other objects of attraction. Materials pertaining to children in various countries will also be exhibited in this hall.

## 3. Education Hall

Materials and objects of reference concerning the development of the world's spiritual civilization, education and religion will be exhibited in the Education Hall.

## 4. Science Hall

Materials and reference concerning the general science will be exhibited here.

## 5. Society Hall

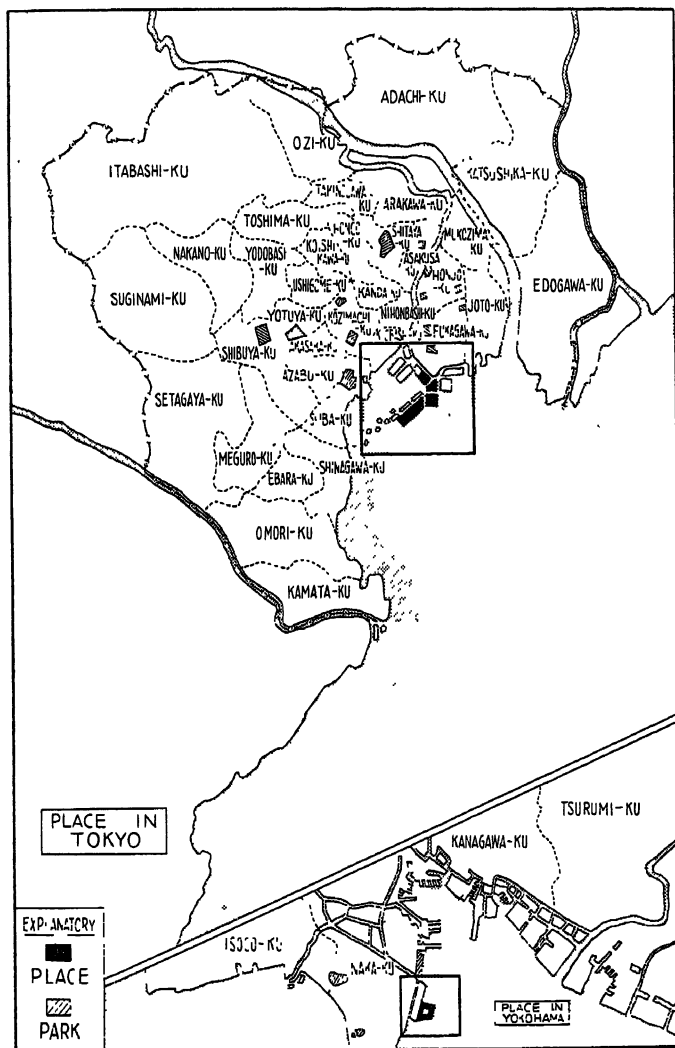
General materials concerning social enterprises, health preservation and hygienic welfare will be exhibited here.

## 6. Fine Art Hall

Paintings, sculptures, applied art, photographs, handwriting, and seal-engraving will be exhibited.

## 7. Architecture Hall

## The Place of the Japan Universal Exposition in Tokyo





Architectural designs, building materials, household furnitures and interior decorations will be exhibited.

8. Resources Hall

Conditions of distribution and production of industrial resources will be shown in this hall.

9. Agriculture Hall

Materials and products of general agricultural pursuits, horticulture and stock-farming will be exhibited here.

10. Forestry Hall

Materials and products of general forestry and hunting will be shown here.

11. Aquiculture Hall

Materials and products of the general aquatic industry will be shown here.

12. Foodstuff Hall

Finishing and manufacturing processes of general food-stuffs and their manufactured articles will be shown.

13. Mining Hall

Materials and products of general mining will be exhibited here.

14. Machinery Hall

All sorts of machines and tools will be exhibited here.

15. Electricity Hall

Here the general electric machines and tools will be exhibited as well as all sorts of machines and tools for radio in the special radio department.

16. Chemical Industry Hall

Manufacturing process of general chemical industrial products and various kinds of manufactures will be exhibited here.

17. Fiber Industry Hall

Manufacturing process of general fiber and dyeing

industries and their products will be shown here.

18. Manufacturing Industry Hall

Process of general manufacturing industry and manufactured goods will be shown here.

19. Communications and Transportation Hall

Equipments, machines and tools necessary for all sorts of communications and transportation will be shown in this.

20. Sightseeing Hall

Matters about places of scenic beauty and historic renown, worthy of tourist spots, will be given and necessary affairs for sightseeing shown on exhibition here.

21. Aeronautics Hall

All matters and data concerning the air crafts, aviation equipment and aviation will be shown here.

22. Ocean Hall

All necessary matters concerning aquarium, oceanic meteorology, oceanography, port and harbor equipment, ships and marine affairs will be exhibited here.

23. Foreign Hall

General matters foreign will be exhibited in this hall.

24. Special Halls

(1) Special Foreign Halls. These halls are to be built by about 50 participating foreign countries at their own expenses.

(2) Special Domestic Halls. The halls are to be built by the Governmental and public institutions and business companies of Japan at their own expenses.

### Annexes

The Annexes have an area of 44,800 square feet

(13,500 tsubo) and have leading buildings such as movie halls, three open air theaters, one large theater and two small theaters, sales shops, exposition office, booths for watchmen, policemen, firemen, medical corps, resting places, guide offices, toilet houses, post offices, etc.

### Others

Other buildings are advertisement towers, resting places, other special buildings, theatrical halls, restaurants, other business shops, etc., all to be built at the expense of Japanese and foreigners, other than those connected with the Exposition. Seaside parks, children's playgrounds, green zones, flower grounds, etc., all to be built at the expense of the Exposition.

### International Meetings and Entertainments

International meetings concerning education, science, art, religion and industry, International Olympiad of track and field and aquatic meets, various meetings of peace, social and female organizations and theatrical, musical and other kinds of entertainment are also to be held. These are the rough plans sponsored by the Exposition Society. If the Exposition is promoted under direct support of the Government, the scale will be grander.

### d. List of Foreign Expositions Participated by Japan

Years of Opening	Names of Expositions	Places Where Held
1873	Wellausstellung	Wien
*1873	International Exposition	London
*1875	“ “	Melbourne



1876	Centennial International Exposition	Philadelphia
*1878	International Exposition	Paris
*1879	" "	Sydney
*1880	" "	Melbourne
*1880	International Fishery Exposition	Berlin
*1881	Mineral Science Exposition	Frankfurt
*1881	International Cotton Exposition	Atlanta
*1882	Domestic Industry Exposition	Triest
*1883	Colonial Product General Export Good Exposition	Amsterdam
*1883	Technical Industry Exposition	Boston
*1883	International Fishery Exposition	London
*1884	International Hygiene Exposition	London
*1884	International Horticulture Exposition	St. Petersburg
*1884	International Forestry Exposition	Edinburgh
*1884	International Industry Exposition	New Orleans
*1885	International Invention Exposition	London
*1885	Gold Smithing International Exposition	Niurenberg
*1888	International Exposition	Barcelona
*1889	Commercial Exposition	Hamburg
*1889	International Prison Exposition	St. Petersburg
1893	The World's Columbian Exposition	Chicago
*1900	International Exposition	Paris
*1901	" "	Glasgow
*1902	" "	Hanoi
1904	Universal Exposition Commemorating Aquisition of Louisiana Territory 1803.	St. Louis

*1905	International Exposition	Portland
1905	Exposition Universelle et Internationale	Liege
*1906	International Exposition	Milan
*1907	" "	James Town
*1908	International Decorative Art and Furniture Exposition	St. Petersburg
*1909	Alaska Yukon Pacific Exposition	Seattle
1910	Japan-British Exhibition	London
1911	Esposizione Internazionale D'Arte	Roma, Torino
*1911	International Hygiene Exposition	Dresden
*1912	International Motors Exposition	Copenhagen
1914	Koloniale Tentoonstelling	Semarang
1915	Panama Pacific International Exposition	San Francisco
1922	Brazil Exposition	Rio de Janeiro
1925	Exposition Internationale des Arts Decoratifs et Industriels Modernes	Paris
1926	The Sesquicentennial International Exposition	Philadelphia
1930	Exposition Internationale de la Grande Industrie Sciences et Applications et D'Art Wallon Ancien	Liege
1933	A Century of Progress International Exposition	Chicago

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\* *English translation from Japanese records is given, as original name unknown.*



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